

Village of Minerva Park, Ohio

VILLAGE ADMINISTRATION

Tiffany Hughes.....Mayor
Leah ClineFiscal Officer
Gene Hollins.....Law Director
Mike FlickingerVillage Engineer

VILLAGE COUNCIL

Diane Schrimpf, President

Tony Benedetti
Joe Curl
Brian Wolf

Mark Brugger
David McNamara

PROJECT MANUAL

for the construction of the

2020 Storm Sewer Improvements Project

JACOBS®

June 16, 2020

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Project No. 690666

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PART 1

BIDDING REQUIREMENTS

ADVERTISEMENT FOR BIDS

Sealed Bids for construction of 2020 Storm Sewer Improvements Project will be received at the office of the Mayor, Village of Minerva Park, Ohio, 2829 Minerva Lake Road, Columbus, Ohio 43231 (Owner), until 12:00 noon local time on August 7, 2020. Any Bids received after the specified time will not be considered.

Bids will then be publicly opened and read aloud. All Bids shall be considered valid until 60 days after the opening date, although not accepted or rejected.

The Project consists of storm sewer rehabilitation and repairs using open cut point repairs and CIPP liner, and post-construction sewer recording and inspection. The Work will be completed in all respects on or before the times specified in the Bidding Documents.

Bidding Documents may be examined without charge during business hours at the following locations:

Village of Minerva Park (by appointment only, 614-882-5743)
2829 Minerva Lake Road
Columbus, Ohio 43231

Jacobs
2 Easton Oval, Suite 500
Columbus, Ohio 43219

Bidding Documents may be obtained from Owner's web site at www.minervapark.org/bids. Bidders are reminded to provide the information noted on the web site to the Owner for maintaining the plan holders list and notifying Bidders of addenda.

Each Bid must be submitted on the prescribed Bid Form and accompanied by Bid security and additional information as prescribed in the Instructions to Bidders, and shall be enclosed in sealed envelopes, addressed to the Mayor, Village of Minerva Park, Ohio, and clearly marked "2020 Storm Sewer Improvements Project."

The Successful Bidder will be required to furnish the additional bond(s) prescribed in the Bidding Documents. In order to perform public work, the Successful Bidder and Subcontractors prior to contract award shall hold or obtain such licenses as required by State Statutes and federal and local Laws and Regulations.

In accordance with ORC 4115.133, no Bidder may submit a Bid if Bidder, any of its officers, or Bidder's Subcontractors or their officers appear on Director of Commerce's list of violators of ORC 4115.02 to 4115.16 concerning payment of wages.

For information concerning the Project contact Randall Berkley at Randall.Berkley@jacobs.com.

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For an appointment to visit the Project area contact the Honorable Tiffany Hughes, Mayor, at 614-882-5743.

Owner's right is reserved to reject all Bids or any Bid not conforming to the intent and purpose of the Bidding Documents.

Construction Cost Estimate: \$270,000.

Village of Minerva Park, Ohio
Tiffany Hughes
Mayor

Publish: July 16, 2020
July 23, 2020
July 30, 2020

END OF SECTION

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

1.1. Terms used in the Instructions to Bidders have the meanings assigned to them in the Section 11001 of the General Conditions.

2. COPIES OF BIDDING DOCUMENTS

2.1. Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement for Bids may be obtained from the Owner.

2.2. Complete sets of Bidding Documents shall be used in preparing Bids. Neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.

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

3. QUALIFICATIONS OF BIDDERS

3.1. In order to perform public work, Bidder and its Subcontractors, prior to award of Contract, shall hold or obtain such licenses as required by State Statutes, and federal and local Laws and Regulations.

3.2. To demonstrate Bidder's qualifications to perform the Work, within 5 days of Owner's request, Bidder shall submit written evidence such as financial data, previous experience, and present commitments. Information about previous experience shall include project name, project location, description, dates of work, contract amount, and owner's name and contact information, including phone number.

3.3. In accordance with ORC 4115.133, no Bidder may submit a Bid if Bidder, any of its officers, or Bidder's Subcontractors or their officers appear on Director of Commerce's list of violators of ORC 4115.02 to 4115.16 concerning payment of wages.

4. EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.1. On request, Owner will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations,

tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.2. It is responsibility of each Bidder before submitting a Bid to:

4.2.1. Examine and carefully study the Bidding Documents, other related data identified in the Bidding Documents, and any Addenda.

4.2.2. Visit the Site to become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

4.2.3. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

4.2.4. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) Bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

4.2.5. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

4.2.6. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

4.2.7. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder.

4.2.8. Determine Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work.

4.3. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this article; that without exception the Bid is premised upon performing and furnishing the Work required by Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by Bidding Documents; that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has

discovered in Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder; and that Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing the Work.

5. SITE AND OTHER AREAS

5.1. The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner, unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

6. INTERPRETATIONS AND ADDENDA

6.1. All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the office issuing documents as having received the Bidding Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6.2. Addenda may also be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

7. BID SECURITY

7.1. In accordance with ORC 153.54 Bid shall be accompanied by Bid security made payable to Owner in an amount of 10 percent of Bidder's maximum Bid price and in the form of a certified check, cashier's check, or letter of credit or a penal Bid Bond for the full amount of the Bid (on the attached form), issued by a surety licensed to transact such business in the state in which the Work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds."

7.2. The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within the time period specified in Article Signing of Agreement, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the 7th day after the Effective Date of the Agreement or the number of days specified for all Bids to remain subject to acceptance in Article Bids to Remain

Subject to Acceptance, whereupon Bid security furnished by such Bidders will be returned.

7.3. Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within 7 days after Bid opening.

8. CONTRACT TIMES

8.1. The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

8.2. The times for Substantial Completion, and readiness for final payment are to be set forth by Bidder in the Bid and will be entered into the Agreement (or incorporated therein by reference to the specific language of the Bid). Substantial Completion is desired on or before the date set forth in the Agreement. The times will be taken into consideration by Owner during the evaluation of Bids, and it will be necessary for the apparent Successful Bidder to satisfy Owner that it will be able to achieve Substantial Completion and be ready for final payment within the times designated in the Bid.

9. LIQUIDATED DAMAGES

9.1. Provisions for liquidated damages, if any, are set forth in the Agreement.

10. WAGE RATES

10.1. This contract is subject to Ohio Prevailing Wage Laws, Chapter 4115 of the Ohio Revised Code and the Contractor and all subcontractors shall comply with all provisions contained therein or as otherwise provided by this note. The Contractor guarantees that the prevailing wage scale to be paid to all laborers and mechanics employed on this contract shall be in accordance with the schedule of the prevailing hourly wage and fringe benefits as determined by the Ohio Department of Commerce for the county in which the work is being performed. The failure to pay prevailing wages to all laborers and mechanics employed on this project shall be considered a breach of contract. Such a failure may result in the revocation of the contractor's and/or subcontractor's certificate of qualification and debarment. A schedule of the most current prevailing wage rates may be accessed by logging in/registering with the Ohio Department of Commerce, Labor and Worker Safety Division, Wage and Hour Bureau.

10.2. The Contractor and all subcontractors shall compensate the employees on this contract at a pay rate not less than the hourly wage and fringe rate listed on the website noted above, for the applicable job classification or as may be modified by the Ohio Department of Commerce, Division of Labor and Worker Safety Wage and Hour Bureau, when new prevailing rates are established.

10.3. Overtime shall be paid at one and one-half times the basic hourly rate for any hours worked beyond forty hours during a pay week. The Contractor and all subcontractors shall pay all compensation by company check to the worker and fringe benefit program.

10.4. The wage and fringe rates determined for this project or as may be later modified, shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers or otherwise made available to the workers. On the first pay date of contract work the Contractor and all subcontractors shall furnish each employee covered by prevailing wage a completed form (WHPW-1512) in accordance with section 4115.05 of the Ohio Revised Code, showing the classification, hourly pay rate, and fringes, and identifying the public authority's Prevailing Wage Coordinator, if such employees are not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of labor. These forms shall be signed by the Contractor or subcontractor and the employee and kept in the Contractor's or subcontractor's payroll files.

10.5. The Contractor and all subcontractors shall submit to the Prevailing Wage Coordinator, certified payrolls on form WHPW-1512 or equivalent, in accordance with sections 4115.07 and 4115.071 (C) of the Ohio Revised Code, three weeks after the start of work and every subsequent week until the completion of the contract. Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted, for all apprentices working on this project. Upon completion of the contract and before the final payment, the Contractor shall submit to the Prevailing Wage Coordinator a final wage affidavit in accordance with section 4115.07 of the Ohio Revised Code stating that wages have been paid in conformance with the minimum rates set forth in the contract. Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in Chapter 4115 of the Ohio Revised Code are strictly adhered to by all subcontractors.

10.6. The Contractor and all subcontractors shall make all of its payroll records available for inspection, copying or transcription by any authorized representative of the contracting agency. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

11. PREPARATION OF BID

11.1. Not used.

11.2. All blanks on the Bid Form shall be completed by typing or printing with black ink and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the

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person signing the Bid Form. A Bid price shall be indicated for each Bid item listed therein or the words “No Bid,” “No Change,” or “Not Applicable” entered.

11.3. A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

11.4. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

11.5. A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.

11.6. A Bid by an individual shall show the Bidder's name and official address.

11.7. A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.

11.8. All names shall be typed or printed in ink below the signatures.

11.9. The Bid shall contain an acknowledgement of receipt of all Addenda; the numbers of which shall be filled in on the Bid Form.

11.10. The address and telephone number for communications regarding the Bid shall be shown.

11.11. The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractors' license number and class, if any, shall also be shown on the Bid Form.

12. BASIS OF BID; COMPARISON OF BIDS

12.1. Unit Price:

12.1.1. Bidders shall submit a Bid a unit price basis for each item of Work listed in the Bid Schedule.

12.1.2. The total of all Bid unit prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price.

12.1.3. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

13. SALES AND USE TAXES

13.1. Owner is exempt from Ohio state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid.

13.2. SUBMISSION OF BID

13.3. A complete copy of the Bid Form is to be completed and submitted with the Bid security and the following data:

13.3.1. Bidder's Experience

13.4. A Bid shall be submitted no later than the date and time prescribed, and at the place, and in the manner set forth in the Advertisement for Bids. Enclose Bid in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of Bidder and accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope marked on the outside with the notation "BID ENCLOSED."

14. MODIFICATION AND WITHDRAWAL OF BID

14.1. A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

14.2. If within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

15. OPENING OF BIDS

15.1. Bids will be opened at the time and place indicated in the Advertisement for Bids and unless obviously nonresponsive, read aloud publicly. An abstract of the

amounts of the Base Bids and major alternates if any will be made available to Bidders after the opening of Bids.

16. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

16.1. All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

17. EVALUATION OF BIDS AND AWARD OF CONTRACT

17.1. Owner reserves its right to reject any or all Bids, including without limitation nonconforming, nonresponsive, unbalanced or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds after reasonable inquiry and evaluation to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

17.2. More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

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

17.4. In evaluating Bidders, Owner may consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted either with the Bid, or otherwise prior to issuance of the Notice of Award.

17.5. Owner may conduct such investigations as Owner deems necessary to establish responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and individuals, or entities to perform the Work in accordance with the Contract Documents.

17.6. If the Contract is to be awarded, Owner will award the Contract to Bidder whose Bid is in the best interests of the Project.

18. CONTRACT SECURITY AND INSURANCE

18.1. Section 11022 of the General Conditions sets forth Owner's requirements as to bonds and insurance. When Successful Bidder delivers executed Agreement to Owner, it shall be accompanied by such bonds.

19. SIGNING OF AGREEMENT

19.1. When Owner gives a Notice of Award to Successful Bidder, it shall be accompanied by required number of unsigned counterparts of the Agreement with the other Contract Documents that are identified in the Agreement as attached thereto. Within 7 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within 10 days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

20. RETAINAGE

20.1. Provisions concerning retainage and Contractor's rights to deposit securities in lieu of retainage, if applicable, are set forth in the Agreement.

21. UNRESOLVED FINDING FOR RECOVERY

21.1. The Contractor affirmatively represents to the local contracting authority that it is not subject to a finding for recovery under Ohio Revised Code §9.24, or that it has taken the appropriate remedial steps required under §9.24 or otherwise qualifies under that section. The Contractor agrees that if this representation is deemed to be false, the contract shall be void ab initio as between the parties to this contract, and any funds paid by the state hereunder shall be immediately repaid to the local contracting authority, or an action for recovery may be immediately commenced by the local government and/or for recovery of said funds.

22. OHIO WORKERS' COMPENSATION COVERAGE

22.1. The Contractor must secure and maintain valid Ohio workers' compensation coverage until the project has been finally accepted by the local contracting authority. A certificate of coverage evidencing valid workers' compensation coverage must be submitted to the local contracting authority before the contract is executed.

22.2. The Contractor must immediately notify the local contracting authority, in writing, if it or any subcontractor fails or refuses to renew their workers' compensation coverage. Furthermore, the Contractor must notify the local contracting authority, in writing, if its or any of its subcontractor's workers' compensation policies are canceled, terminated or lapse.

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22.3. The failure to maintain valid workers' compensation coverage shall be considered a breach of contract which may result in the Contractor or subcontractor being removed from the project, withholding of pay estimates and/or termination of the contract.

23. DRUG-FREE WORKPLACE PROGRAM

23.1. In accordance with Ohio Revised Code §153.03 and during the life of this project, the Contractor and all its Subcontractors that provide labor on the Project site must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Workplace Program ("DFWP") or a comparable program approved by the OBWC.

24. OHIO PREFERENCE

24.1. In accordance with Ohio Revised Code §164.05 (A)(6), to the extent practicable, the Contractor and subcontractor shall use Ohio products, materials, services and labor in connection with this project.

25. OHIO ETHICS LAW

25.1. Contractor agrees that it is currently in compliance and will continue to adhere to the requirements of Ohio Ethics law as provided by Section 102.03 and 102.04 of the Ohio Revised Code.

END OF SECTION

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NOTE TO BIDDER: Use typewriter or BLACK ink for completing this Bid Form.

BID FORM (STIPULATED PRICE BASIS)

1. BID RECIPIENT

1.1. This Bid is submitted to:

Owner: Village of Minerva Park, Ohio

Address: 2829 Minerva Lake Road
Columbus, OH 43231

Project Identification: 2020 Storm Sewer Improvements Project

1.2. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

2. BIDDER'S ACKNOWLEDGEMENTS

2.1. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

3. BIDDER'S REPRESENTATIONS

3.1. In submitting this Bid, Bidder represents that:

3.1.1. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.	Addendum Date

(Bidder shall insert number of each Addendum received.)

3.1.2. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3.1.3. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, and performance of the Work.

3.1.4. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) Bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

3.1.5. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

3.1.6. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

3.1.7. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.

3.1.8. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

3.1.9. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.

4. FURTHER REPRESENTATIONS

4.1. Bidder further represents that:

4.1.1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation;

4.1.2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

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4.1.3. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

4.1.4. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

4.1.5. All required sales and use taxes are included in the stated Bid prices for the Work unless provision is made herein for the Bidder to separately itemize the estimated amount of sales tax.

5. BASIS OF BIDS

5.1. Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

5.2. Unit Price Bid Schedule

5.2.1. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

UNIT PRICE BID SCHEDULE				
Item No.	Description	Estimated Quantity	Unit	Extended Bid Unit Price
1	Pipe Segment STM018-STM021 Point Repair and Complete Inspection	1	LS	\$
2	Pipe Segment STM019-STM020 Line	1	LS	\$
3	Pipe Segment STM020-STM018 Clean and Complete Inspection	1	LS	\$
4	Pipe Segment STM021-STM022 Point Repair and Complete Inspection	1	LS	\$
5	Pipe Segment STM022-STM044 Line	1	LS	\$
6	Pipe Segment STM026-STM028 Point Repair and Complete Inspection	1	LS	\$
7	Pipe Segment STM027-STM025 Point Repair	1	LS	\$
8	Pipe Segment STM029-STM033A Line	1	LS	\$
9	Pipe Segment STM030-STM029 Line	1	LS	\$
10	Pipe Segment STM033A-STM033 Line	1	LS	\$

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UNIT PRICE BID SCHEDULE				
Item No.	Description	Estimated Quantity	Unit	Extended Bid Unit Price
11	Pipe Segment STM034-STM033 Clean and Complete Inspection	1	LS	\$
12	Pipe Segment STM040-STM042 Line	1	LS	\$
13	Pipe Segment STM041-STM054 Line	1	LS	\$
14	Pipe Segment STM043A-STM043 Point Repair and Complete Inspection	1	LS	\$
15	Pipe Segment STM046-STM027 Line	1	LS	\$
16	Pipe Segment STM054-STM236 Line	1	LS	\$
17	Allowance for Work as Directed by Owner	1	LS	\$ 50,000.00
Total of Extended Bid Unit Prices				\$

6. TIME OF COMPLETION

6.1. Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Section 11001.22 and 11020 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.2. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work, and any specified Milestones, within the Contract Times.

7. ATTACHMENTS TO THIS BID

7.1. The following documents are attached to and made a condition of this Bid:

7.1.1. Required Bid security.

7.1.2. Bidder's Experience.

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8. DEFINED TERMS

8.1. The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders and Section 11001 of the General Conditions.

9. BID SUBMITTAL

9.1. This Bid submitted by:

If Bidder is:

An Individual

Name (*typed or printed*): _____

By (*signature*): _____

Doing business as: _____

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A Partnership

Partnership Name: _____(SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____(SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____(CORPORATE SEAL)

Attest: _____
(Signature of Corporate Secretary)

Date of Qualification to do business is: _____

2020 STORM SEWER IMPROVEMENTS PROJECT

A Joint Venture

Joint Venturer Name: _____(SEAL)

By: _____
(Signature of joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address: _____

Phone No.: _____ FAX No.: _____

BID SUBMITTED on _____, 20____

Ohio Contractor's License No.: _____

Contractor's License Class (where applicable): _____

END OF SECTION

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BID BOND

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

BIDDER (Name and Address):

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

OWNER (Name and Address):

BID

Bid Due Date:

Project (Brief Description Including Location):

BOND

Bond Number:

Date (Not later than Bid due date):

Penal sum _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

_____(Seal)
Bidder's Name and Corporate Seal

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

Note: Above addresses are to be used for giving required notice.

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

END OF SECTION

PART 2

CONTRACT FORMS

AGREEMENT

THIS AGREEMENT is by and between_____

(Owner) and _____
_____ (Contractor).

Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

1. WORK

1.1. Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Storm sewer rehabilitation and repairs using open cut point repairs and CIPP liner, and post-construction sewer recording and inspection as further detailed in the Contract Documents.

2. THE PROJECT

2.1. The Project for which the Work under the Contract Documents may be generally described as follows:

2020 Storm Sewer Improvements Project

3. ENGINEER

3.1. The Project has been designed by Jacobs who is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

4. CONTRACT TIMES

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

4.2. Dates for Substantial Completion and Final Payment: The Work shall be substantially completed and ready for final payment in accordance with the General Conditions within 90 days of Notice to Proceed. Substantial Completions shall be on or before [To Be Determined].

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4.3. Liquidated Damages: Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph Contract Times above, plus any extensions thereof allowed in accordance with Section 11013 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner Five Hundred Dollars (\$500) for each day that expires after the time specified herein for Substantial Completion until the Work is substantially complete.

5. CONTRACT PRICE

5.1. Owner will pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to the following:

5.1.1. Unit Prices:

5.1.1.1. Estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer and Contractor.

5.1.1.2. For all Unit Price Work, an amount equal to the sum of established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this paragraph:

UNIT PRICE BID SCHEDULE				
Item No.	Description	Estimated Quantity	Unit	Extended Bid Unit Price
1	Pipe Segment STM018-STM021 Point Repair and Complete Inspection	1	LS	\$
2	Pipe Segment STM019-STM020 Line	1	LS	\$
3	Pipe Segment STM020-STM018 Clean and Complete Inspection	1	LS	\$
4	Pipe Segment STM021-STM022 Point Repair and Complete Inspection	1	LS	\$
5	Pipe Segment STM022-STM044 Line	1	LS	\$
6	Pipe Segment STM026-STM028 Point Repair	1	LS	\$

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UNIT PRICE BID SCHEDULE				
Item No.	Description	Estimated Quantity	Unit	Extended Bid Unit Price
7	Pipe Segment STM027-STM025 Point Repair	1	LS	\$
8	Pipe Segment STM029-STM033A Line	1	LS	\$
9	Pipe Segment STM030-STM029 Line	1	LS	\$
10	Pipe Segment STM033A-STM033 Line	1	LS	\$
11	Pipe Segment STM034-STM033 Clean and Complete Inspection	1	LS	\$
12	Pipe Segment STM040-STM042 Line	1	LS	\$
13	Pipe Segment STM041-STM054 Line	1	LS	\$
14	Pipe Segment STM043A-STM043 Point Repair and Complete Inspection	1	LS	\$
15	Pipe Segment STM046-STM027 Line	1	LS	\$
16	Pipe Segment STM054-STM236 Line	1	LS	\$
17	Allowance for Work as Directed by Owner	1	LS	\$ 50,000.00
Total of Extended Bid Unit Prices				\$

TOTAL OF ALL ESTIMATED UNIT PRICES:

_____ Dollars
 (Words)

and _____ Cents
 (Words)

 (Figures)

6. PAYMENT PROCEDURES

6.1. Submittal and Processing of Payments: Contractor shall submit Applications for Payment in accordance with Section 11019 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.2. Progress Payments and Retainage: Owner will make progress payments on account of the Contract Price on the basis of Contractor's Application for Payment on or about the 14th day of each month during performance of the Work as provided herein. All such payments will be measured as provided in the General Conditions.

6.2.1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Section 11019 of the General Conditions:

6.2.1.1. Ninety percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, Owner, on recommendation of Engineer, may determine that as long as the character and progress of the Work remain satisfactory to them, there will be no additional retainage; and

6.2.1.2. Ninety percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

6.3. Final Payment:

6.3.1. Upon final completion and acceptance of the Work in accordance with the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in Section 11019 of the General Conditions.

7. INTEREST

7.1. All monies not paid when due as provided in Section 11019 of the General Conditions shall bear interest at the rate of one-half percent per month.

8. CONTRACTOR'S REPRESENTATIONS

8.1. In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

8.1.1. Contractor has examined and carefully studied the Contract Documents.

8.1.2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

8.1.3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

8.1.4. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.

8.1.5. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

8.1.6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

8.1.7. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

8.1.8. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract

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Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

8.1.9. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9. CONTRACT DOCUMENTS

9.1. Contents:

9.1.1. The Contract Documents that are attached to this Agreement (except as expressly noted otherwise) consist of the following:

9.1.1.1. This Agreement (pages 1 to _____, inclusive).

9.1.1.2. Performance bond (pages 1 to _____, inclusive).

9.1.1.3. Payment bond (pages 1 to _____), inclusive).

9.1.1.4. General Conditions (pages 1 to 21, inclusive).

9.1.1.5. Addenda (numbers _____ to _____, inclusive).

9.1.1.6. Technical specifications as included in Part 5.

9.1.1.7. Attachments as included in Part 6.

9.1.2. Exhibits to this Agreement (enumerated as follows):

9.1.2.1. Documentation submitted by Contractor prior to Notice of Award (pages _____ to _____, inclusive).

9.1.3. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

9.1.3.1. Notice of Award (pages 1 to _____, inclusive).

9.1.3.2. Notice to Proceed (pages 1 to _____, inclusive).

9.1.3.3. Work Change Directives.

9.1.3.4. Change Order(s).

9.2. There are no Contract Documents other than those listed above in this Article.

9.3. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

10. MISCELLANEOUS

10.1. Terms used in this Agreement will have the meanings stated in the General Conditions.

10.2. Successors and Assigns: Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

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

10.4. Assignment of Contract: No assignment by a party hereto of any rights under or interests in the Contract shall be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment shall release or discharge the assignor from any duty or responsibility under the Contract Documents.

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IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____, 20____ (which is the Effective Date of the Agreement).

OWNER: _____

CONTRACTOR: _____

By: _____

By: _____

Title: _____

Title: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

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

License No. _____
(Where applicable)

Agent for service or process: _____

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

END OF SECTION

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PERFORMANCE BOND FORM

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

CONTRACTOR
(Name and Address):

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

OWNER (Name and Address):

CONTRACT

Date:
Amount:
Description (Name and Location):

BOND

Bond Number:
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title

Surety's Name and Corporate Seal

By: _____
Signature and Title

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____
Signature and Title

2020 STORM SEWER IMPROVEMENTS PROJECT

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title

Surety's Name and Corporate Seal

By: _____
Signature and Title

(Attach Power of Attorney)

Attest: _____
Signature and Title

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1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.
2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
 - 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract;
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:
 - 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;

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6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and

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

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

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

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

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

12. Definitions.

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

12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone
Surety Agency or Broker
Owner's Representative (engineer or other party)

END OF SECTION

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PAYMENT BOND FORM

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

CONTRACTOR
(Name and Address):

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

OWNER (Name and Address):

CONTRACT

Date:
Amount:
Description (Name and Location):

BOND

Bond Number:
Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title

Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____
Signature and Title

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CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title

Surety's Name and Corporate Seal

By: _____
Signature and Title

(Attach Power of Attorney)

Attest: _____
Signature and Title

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1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. Reserved.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of

2020 STORM SEWER IMPROVEMENTS PROJECT

competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

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

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor

shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions:

15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY – Name, Address and Telephone
Surety Agency or Broker:
Owner's Representative (engineer or other party):

END OF SECTION

PART 3

CONDITIONS OF CONTRACT

GENERAL CONDITIONS
SECTION 00 70 01

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11001 DEFINITIONS

- 11001.01 Wherever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:
- 11001.02 Addenda - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents by additions, deletions, clarifications, or corrections.
- 11001.05 Bonds - Bid Guaranty and Contract Bonds and other instruments of security, furnished by the Contractor's Surety in accordance with the Contract Documents.
- 11001.06 Change Order - A written order to the Contractor authorizing an addition, deletion or revision in the Work within the general scope of the Contract Documents or authorizing an adjustment in the Contract Price or Contract Time.
- 11001.07 Contract Documents - Proposal requirements including Request for Proposals and Instructions for Proposers: Proposal Forms including Bid Guaranty and Contract Bond and Bid; Contract Forms and General Conditions including Noncollusion Affidavit, Agreement, Legal and Fiscal Officers, Performance Bond, Notice of Award, Notice To Proceed, Change Order, Plans, Specifications, General Conditions, and Technical Specifications; and Addenda.
- 11001.08 Contract Price - The total monies payable to the Contractor under the terms and conditions of the Contract Documents.
- 11001.09 Contract Time - The number of calendar days stated in the Contract Documents for completion of the Work.
- 11001.10 Contractor - The person, firm or corporation with whom the Owner has executed the Agreement
- 11001.11 Engineer - The Village Engineer of the Village of Minerva Park working under the supervision of the Mayor under which the project is being performed.
- 11001.12 Field Order - A written order affecting a change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the Engineer to the Contractor during the construction.
- 11001.13 Notice of Award - The Written Notice of the acceptance of the Proposal from the Owner to the successful Proposer.
- 11001.14 Notice to Proceed - Written communication issued by the Owner to the Contractor authorizing the Contractor to proceed with the Work and establishing the date of commencement of the Work.

- 11001.15 Owner - The Village of Minerva Park.
- 11001.16 Plans - The part of the Contract Documents which show the characteristics and scope of the Work to be performed and which have been prepared or approved by the Engineer.
- 11001.17 Project - The undertaking to be performed as provided in the Contract Documents.
- 11001.17.1 Proposal -The proposal of the Proposer submitted on the prescribed form setting forth the prices for the Work to be performed.
- 11001.17.2 Proposer - Any person, firm or corporation submitting a Proposal for the Work.
- 11001.18 Resident Project Representative - The authorized representative of the Owner who is assigned to the Project site or any part thereof.
- 11001.19 Shop Drawings - All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Contractor, a Subcontractor manufacturer, supplier or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.
- 11001.20 Specifications - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards, and workmanship.
- 11001.21 Subcontractor - An individual, firm or corporation.
- 11001.22 Substantial Completion - That date as certified by the Engineer when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents so that the Project or specified part can be utilized for the purposes for which it is intended.
- 11001.23 Supplemental General Conditions - Modifications to the General Conditions.
- 11001.24 Supplemental Specifications - Modifications to the Specifications.
- 11001.25 Supplier - Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.
- 11001.26 Work - All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

11001.27 Written Notice - Any notice to any part of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof, completed, when posted by certified or registered mail to the said party at this last given address, or delivered in person to said party or their authorized representative on the Work.

11002 ADDITIONAL INSTRUCTIONS and DETAIL DRAWINGS

11002.01 The Contractor may be furnished additional Instructions and detail drawings, by the Engineer as necessary to carry out the Work required by the Contract Documents.

11002.02 The additional drawings and Instructions thus applied will become a part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instruction.

11003 SCHEDULES, REPORTS and RECORDS

11003.01 The Contractor shall submit to the Owner and Engineer such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records, and other data where applicable as are required by the Contract Documents for the Work to be performed. Progress schedules shall be completed in accordance with the Supplemental Specifications.

11003.02 For Projects where the Contract Price exceeds \$150,000, the Contractor shall submit to the Engineer a schedule of payments anticipated to be earned during the course of the Work. This payment schedule shall be submitted at the preconstruction meeting. Should the construction schedule be revised per the Contract Documents, the schedule of payments shall be revised accordingly.

11004 PLANS and SPECIFICATIONS

11004.01 In addition to the requirements of the City of Columbus, Construction and Material Specifications, Section 102.05, "Examination of Plans", the Contractor shall conform to the following items:

- (a) The intent of the Plans and Specifications is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental work necessary to complete the Project in a good workmanlike manner, ready for use, occupancy or operation by the Owner
- (b) In case of conflict between the Plans and Specifications, the Plans shall govern. Figure dimensions on Plans shall govern over scale dimensions, and detailed Plans shall govern over general Plans.
- (c) Any discrepancies found between the Plans and Specifications and site conditions or any inconsistencies or ambiguities in the Plans or Specification

shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after the Contractor's discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

11005 SHOP DRAWINGS

- 11005.01 The Contractor shall provide Shop Drawings necessary for the prosecution of the Work as required by the Contract Documents. The Engineer shall promptly review all Shop Drawings only for general conformance with the design concept of the project and for compliance with the information given in the Contract Documents. The Contractor is responsible for quantities and dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or techniques of construction; and for coordination of the Work of all trades. The Engineer's approval of any Shop Drawing shall not release the Contractor from responsibility for deviations from the Contract Documents. The approval of any Shop Drawing which substantially deviates from the requirement of the Contract Documents shall be evidenced by a Change Order.
- 11005.02 When submitted for the Engineer's review, Shop Drawings shall bear the Contractor's certification that the Contractor has reviewed, checked, and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents.
- 11005.03 Portions of the Work requiring a Shop Drawing or sample submission shall not begin until the Shop Drawing or sample submission has been approved by the Engineer. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.
- 11005.04 A minimum of five sets of Shop Drawings shall be submitted. Submittal of the minimum will result in only one copy being returned to the Contractor.

11006 MATERIALS, EQUIPMENT, SERVICES and FACILITIES

- 11006.01 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, test and deliver the Work within the specified time.
- 11006.02 Materials and equipment shall be so stored as to ensure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection.
- 11006.03 Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer.

Unless specifically stated otherwise, all materials and equipment incorporated in the Work shall be new, unused, and undamaged.

11006.04 Materials, supplies, and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.

11006.05 Materials, supplies, or equipment to be incorporated into the Work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

11007 INSPECTION and TESTING

11007.01 All materials and equipment used in the construction of the Project shall be subject to inspection and testing in accordance with accepted standards, as required and defined in the Contract Documents.

11007.02 The Owner shall provide all inspection and testing services not required by the Contract Documents.

11007.03 The Contractor shall provide all the testing and inspection services required by the Contract Documents.

11007.04 If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will then furnish the Engineer the required certificates of inspection, testing, or approval.

11007.05 Inspections, tests or approvals by the Engineer or other shall not relieve the Contractor from the Contractor's obligation to perform the Work in accordance with the requirements of the Contract Documents.

11007.06 The Engineer and the Engineer's representatives will at all times have access to the Work. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to inspect all Work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the Work and also for any inspection or testing thereof.

11007.07 If any Work is covered, contrary to the written Instructions of the Engineer, it must be uncovered for the Engineer's observation and replaced at the Contractor's expense.

11007.08 If the Engineer considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor at the Engineer's request, will uncover, expose or

otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction. If, however, such Work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to testing, and reconstruction and an appropriate Change Order shall be issued.

11008 SUBSTITUTIONS

11008.01 Whenever a material, article or piece of equipment is identified on the Plans and Specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to the specified, the Engineer may approve it's substitution and use by the Contractor. Any cost differential shall be deductible from the Contract Price and the Contract Documents shall be appropriately modified by Change Order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the Project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time.

11008.02 In considering the suitability of substitutions, in addition to equality of substance and function, economy of maintenance and operation, availability of repair parts, and duration of life shall be considered. In those instances in which a particular brand, make of material, device, or equipment is required to be stated by the Contractor in the Bid, the Contractor will be required to provide the item so indicated, unless approved by the Engineer, by a Field Order, or Change Order.

11009 PATENTS

11009.01 The Contractor shall pay all applicable royalties and license fees. The Contractor shall defend all suits or claims for infringement of any patent rights and save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified. However, if the Contractor has reason to believe that the design, process, or product specified is an infringement of a patent, the Contractor shall be responsible for such loss unless the Contractor promptly gives such information to the Engineer.

11010 SURVEYS, PERMITS and REGULATIONS

- 11010.01 The Owner shall establish control points for locating the principal component parts of the Work together with a suitable number of bench marks adjacent to the Work as shown in the Contract Documents. From the information provided by the Owner, unless otherwise specified in the Contract Documents, the Contractor shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations, and cut sheets.
- 11010.02 The Contractor shall carefully preserve bench marks, property corners, reference points, and stakes and, in case of willful or careless destruction, the Contractor shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.
- 11010.03 Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be secured and paid for by the Contractor unless otherwise specified. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the Work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, the Contractor shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in Section titled "Changes in Work".

11011 PROTECTION OF WORK, PROPERTY and PERSONS

- 11011.01 The Contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury, or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, and structures.
- 11011.02 The Contractor will be held responsible for any and all materials or Work to the full amount of payments made thereon, and will be required to make good, at the Contractor's own cost, any injury or damage which said materials or Work may sustain from any source or cause whatever, before final acceptance thereof. During freezing or severe winter weather, the Contractor shall provide the necessary drainage, heating facilities, and other protection for the footings and floor slab to prevent any possible damage from frost action. It will also be necessary for the Contractor to provide protection to the walls from earth slippage and ponding of water and mud that could cause structural damage by freezing action.

- 11011.03 The location of subsurface utilities is shown on the plans from information furnished by the utility owners pursuant to Section 153.64 of the Ohio Revised Code. The Contractor shall, at least 2 working days, excluding Saturdays, Sundays, and legal holidays, prior to construction in the area of the subsurface utility, notify the subsurface utility owner in writing, by telephone, or in person. The subsurface utility owner shall, within 48 hours, excluding Saturdays, Sundays, and legal holidays, after receipt of the notice, stake, mark or otherwise delineate the alignment and approximate grade of the utility. The marking or locating shall be coordinated to stay approximately 2 days ahead of the planned construction. The Contractor shall alert immediately the occupants of nearby premises as to any emergency that may be created or discovered at or near such premises.
- 11011.04 The location of surface utilities and structures is shown on the plans from data available at the time of survey and is not necessarily complete or correct. The exact location and protection of surface utilities and structures are the responsibilities of the Contractor. The Contractor will remedy all damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable. During construction, the Contractor shall use due diligence in protecting from damage all existing surface utilities and structures whether shown on the plans or not. If damage is caused, the Contractor shall be responsible for the repair or restoration of same and for any resulting contingent damage. The Contractor will notify owners of adjacent surface utilities when prosecution of the Work may affect them.
- 11011.05 The Contractor will comply with all applicable laws, ordinances, rules regulations, and orders of any public body having jurisdiction. The Contractor will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection.

11012 SUPERVISION BY CONTRACTOR

- 11012.01 The Contractor will supervise and direct the Work. The Contractor will be solely responsible for the means, methods, techniques, safety, sequences, and procedures of construction. The Contractor will employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present and on the site at all times as required to perform adequate supervision and coordination of the Work.

11013 CHANGES IN THE WORK

- 11013.01 The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Agreement. If such changes increase or decrease the

amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment shall be authorized by Change Order.

11013.02 The Engineer also may, at any time, by issuing a Field Order, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Engineer unless the Contractor believes that such Field Order entitles the Contractor to a change in Contract Price or Time, or both, in which event the Contractor shall give the Engineer Written Notice thereof within 7 days after the receipt of the ordered change. Thereafter, the Contractor shall document the basis for the change in Contract Price or Time within 30 days. The Contractor shall not execute such changes pending the receipt of an executed Change Order or further instruction from the Owner.

11013.03 The Contractor shall on or before the 10th day of the month succeeding that in which any extra Work shall have been completed, file with the Engineer an account giving the itemized cost of such extra Work, except where a supplementary contract has been entered into and shall give the Engineer access to all accounts, bills and vouchers relating thereto. In case the Contractor shall fail to file, within the time above mentioned, such accounts for extra Work, the Contractor shall have no claim for compensation for the same against the Owner. No extra Work will be paid for unless specifically ordered as such in writing by the Engineer.

11014 CHANGES IN CONTRACT PRICE

11014.01 The Contract Price may be changed only by a Change Order. The value of any Work covered by a Change Order or any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) Force account in accordance with ODOT CMS Section 109.04, "Extra and Force Account Work".

11015 TIME FOR COMPLETION and LIQUIDATED DAMAGES (NOT USED)

11016 CORRECTION OF WORK

11016.01 The Contractor shall promptly remove from the premises all Work rejected by the Engineer for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of all Work of other Contractors destroyed or damaged by such removal or replacement.

11016.02 All removal and replacement Work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected Work within 10 days after receipt of Written Notice, the Owner may remove such Work and store the materials at the expense of the Contractor.

11017 SUBSURFACE CONDITIONS

11017.01 The Contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the Owner by Written Notice of:

11017.01.01 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or

11017.01.02 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Work of the character provided for in the Contract Documents.

11017.02 The Owner shall promptly investigate the conditions, and if the Owner finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the Work, an equitable adjustment shall be made and the Contract Documents shall be modified by a Change Order.

11017.03 Any claim of the Contractor for adjustment hereunder shall not be allowed unless the Contractor has given the required Written Notice; provided that the Owner may, if the Owner determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

11018 SUSPENSION OF WORK, TERMINATION and DELAY

11018.01 The Engineer may suspend the Work or any portion thereof for a period of time determined by the Engineer and established by Written Notice to the Contractor which notice shall fix the date on which Work shall be resumed. The Contractor will resume that Work on the date so fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

11018.02 If the Contractor is adjudged bankrupt or insolvent, or if the Contractor makes a general assignment for the benefit of the Contractor's creditors, or if a trustee or receiver is appointed for the Contractor or any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if the Contractor repeatedly fails to supply sufficient skilled workman or suitable materials or equipment, or if the Contractor repeatedly fails to make prompt payments to Sub-Contractors or for labor, materials or equipment or if the Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the Work or if the Contractor disregards the authority of the Engineer, or if the Contractor otherwise violates any

provision of the Contract Documents, then the Owner may, without prejudice to any other right or remedy and after giving the Contractor and the Contractor's Surety a minimum of 10 days from delivery of a Written Notice, terminate the services of the Contractor and take possession of the Project and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the Contractor, and finish the Work by whatever method the Owner may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.

11018.03 Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any right of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

11018.04 After 10 days from delivery of a Written Notice to the Contractor and the Engineer, the Owner may, without cause and without prejudice to any other right or remedy, elect to terminate the Contract. In such case, the Contractor shall be paid for Work executed and any expense sustained plus reasonable profit, unless such termination was due to the act or conduct of the Contractor.

11019 PAYMENTS TO CONTRACTOR

11019.01 At a mutually agreed upon date, but no more than seven calendar days prior to the cut off date before each progress payment falls due, the Contractor and the Engineer shall meet to review all pay item quantities, supported by such data as the Engineer may reasonably require, for Work performed during the period covered by the progress payment. After all quantities have been reviewed and agreed upon by both parties, the Engineer shall process the progress payment request for review and signature by the Contractor and Owner. Only one progress payment shall be processed in a given month. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at or near the site, the progress payment shall also be accompanied by such supporting data, satisfactory to the Owner as will establish the Owner's title to the material and equipment and protect his interest therein, including applicable insurance. After reviewing the progress payment request which has been signed by the Contractor, the Engineer will forward the progress payment request to the Owner for processing. The Owner will, within 30 days of the Contractor's dated signature of an approved progress payment request, pay the Contractor for the Work at the rate of 90% of the amount as approved by the Engineer. The 10% withheld will be paid upon full Project completion to the Owner's satisfaction.

- 11019.02 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.
- 11019.03 Prior to SUBSTANTIAL COMPLETION, the Owner, with the approval of the Engineer and with the concurrence of the Contractor, may use any completed or substantially completed portions of the Work. Such use shall not constitute any acceptance of such portions of the Work.
- 11019.04 The Owner shall have the right to enter the premises for the purpose of doing Work not covered by the Contract Documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work, or the restoration of any damaged Work except such as may be caused by agents or employees of the Owner.
- 11019.05 Upon completion of the Work, the Engineer shall issue a letter attached to the final payment request, recommending that the Work be accepted by the Owner. The entire balance found to be due to the Contractor, including the retained percentages, but except such sums as may be lawfully retained by the Owner, shall be paid to the Contractor within 30 days of completion and acceptance of the Work by the Owner.
- 11019.06 The Contractor will indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workman, mechanics, material men, and suppliers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the Work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, the Contractor's Surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.
- 11019.07 If the Owner fails to make payment within 30 days of the Contractor's dated signature of the progress payment request, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the Contractor.

11020 ACCEPTANCE OF FINAL PAYMENT AS RELEASE

11020.01 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the Owner and other relating to or arising out of this Work. Any payment, however, final or otherwise, shall not release the Contractor or the Contractor's Sureties from any obligations under the Contract Documents or the Contract Bond.

11021 INSURANCE

11021.01 The Contractor shall purchase and maintain such insurance as will protect the Contractor from claims set forth below which arise out of or result from the Contractor's execution of the Work, whether such execution be by the Contractor or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

11021.01.01 Claims under Worker's Compensation, disability, benefit, and other similar employee benefit acts;

11021.01.02 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

11021.01.03 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

11021.01.04 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person;

11021.01.05 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom; AND

11021.01.06 Claims for damages because of flooding.

11021.02 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least 15 days prior WRITTEN NOTICE has been given to the Owner.

11021.03 The Contractor shall purchase and maintain, during the CONTRACT TIME, Comprehensive General and Automobile Liability insurance issued to the Contractor and protecting the Contractor from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in collection with any operations under the Contract Documents, whether such operations be by

the Contractor or by any Subcontractor, or anyone directly or indirectly employed by the Contractor or a Subcontractor. Insurance shall be written with limits of liability of not less than \$1,000,000 for each person and \$1,000,000 for each occurrence for all damages arising out of bodily injury, including death at any time resulting therefrom, and not less than \$500,000 for all property damage sustained in any one occurrence and shall include coverage for:

- 11021.03.01 Claims arising after the Contractor and Subcontractor have completed their Work (completed operations and product liabilities coverage);
- 11021.03.02 Claims arising from the liability assumed by the Contractor under this contract including third party beneficiary liability coverage;
- 11021.03.03 Claims arising from property damage to wires, conduits, pipes, mains, sewers, tanks, tunnels, any similar property and any apparatus in connection therewith beneath the surface of the ground or water, caused by and occurring during the use of mechanical equipment for the purpose of grading land, paving, excavating, drilling, borrowing, filling, backfilling, tunneling, or pile driving; and
- 11021.03.04 Claims for property damage arising out of collapse of or structural injury to any building or structure due to grading of land, excavating, borrowing, filling, backfilling, tunneling, pile driving, cofferdam work or caisson work.
- 11021.03.05 In addition, the following coverages shall be provided if the Work contemplated by the contract involves such operations:
- 11021.03.06 Claims for damage to property arising from operations directly or indirectly incident to blasting or explosion, however caused; and
- 11021.03.07 Claims for damage to property arising out of moving, shoring, underpinning, raising or demolition of any building or structure, or removal or rebuilding of any structural support thereof.
- 11021.03.08 Umbrella Excess Liability Insurance to extend existing policies to the required limits will be accepted.
- 11021.04 The Contractor shall purchase and maintain, during the Contract Time, All Risk Builders Risk Insurance upon the Project to the full insurable value thereof for the benefit of the Owner, the Contractor, and Subcontractors as their interest may appear. This provision shall in no way release the Contractor or Contractor's Surety from obligations under the Contract Documents to fully complete the Project.
- 11021.05 The Contractor shall purchase and maintain, during the Contract Time, in accordance with the provisions of the laws of the state in which the Work is performed, Worker's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the Project and in case any Work is sublet, the

Contractor shall require such Subcontractor similarly to provide Worker's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous Work under this contract at the site of the Project is not protected under Worker's Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

11022 CONTRACT SECURITY

11022.01 The Contractor shall within 10 days after the receipt of the Notice of Award furnish the Owner with a Contract Bond, if applicable, in penal sums equal to the amount of the Contract Price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the Work provided by the Contract Documents. Such Bond shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the Work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular No. 570 and must not exceed the underwriting limitation. The expense of this Bond shall be borne by the Contractor. If at any time a Surety on any such Bond is declared bankrupt or loses its right to do business in the state in which the Work is to be performed or is removed from the list of Surety companies accepted on federal Bonds, Contractor shall within 10 days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other Surety or Sureties as may be satisfactory to the Owner. The premiums on such Bonds shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new Surety or Sureties shall have furnished an acceptable Bond to the Owner.

11023 ASSIGNMENTS

11023.01 Neither the Contractor nor the Owner shall sell, transfer, assign or otherwise dispose of the CONTRACT or any portion thereof, or of their right, title or interest therein, or their obligations thereunder, without written consent of the other party.

11024 INDEMNIFICATION

11024.01 The Contractor will indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the Contractor, and Subcontractor,

anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

11024.02 In any and all claims against the Owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Worker's Compensation Acts, disability benefits acts, or other employee benefits acts.

11024.03 The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, the Engineer's agents or employees arising out of the preparation or approval of maps, Plans, opinions, reports, surveys, Change Orders, designs or Specifications.

11025 SEPARATE CONTRACTS

11025.01 The Owner reserves the right to let other contracts in connection with this Project. The Contractor shall afford other Contractors, reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall properly connect and coordinate the Work with theirs. If the proper execution or results of any part of the Contractor's Work depends upon the Work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such Work that render it unsuitable for such proper execution and results.

11025.02 The Owner may perform additional Work related to the Project by the Owner, or the Owner may let other contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (or the Owner, if the Owner is performing the additional Work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work, and shall properly connect and coordinate the Work with theirs.

11025.03 If the performance of additional Work by other Contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, Written Notice thereof shall be given to the Contractor prior to starting any such additional Work. If the Contractor believes that the performance of such additional Work by the Owner or others involves the Contractor an additional expense or entitles the Contractor to an extension of the Contract Time, the Contractor may make a claim therefore as provided in Sections titled "Changes in Contract Price" and "Time for Completion and Liquidated Damages".

11026 SUBCONTRACTORS

11026.01 The Contractor may utilize the services of specialty Subcontractors on those parts of the Work which are usually performed by specialty Subcontractors.

- 11026.02 The Contractor shall not award Work to Subcontractor(s) without prior written approval of the Owner.
- 11026.03 The Contractor shall not award Work to Subcontractor(s), in excess of 50 percent of the Contract Price, without prior written approval of the Owner.
- 11026.04 The Contractor shall be fully responsible to the Owner for the acts and omissions of Subcontractors, and of persons either directly or indirectly employed by them, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.
- 11026.05 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the Contractor by the terms of the Contract Documents in so far as applicable to the Work of Subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provisions of the Contract Documents.
- 11026.06 Nothing contained in this Agreement shall create any contractual relation between any Subcontractor and the Owner.

11027 ENGINEER'S AUTHORITY

- 11027.01 The Engineer shall act as the Owner's representative during the construction period. The Engineer shall decide questions which may arise as to quality and acceptability of materials furnished and Work performed. The Engineer shall interpret the intent of the Contract Documents in a fair and unbiased manner. The Engineer will make periodic visits to the site and determine if the Work is proceeding in accordance with the Contract Documents.
- 11027.02 The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship, and execution of the Work. Inspections may be made at the factory or fabrication plant of the source of material supply.
- 11027.03 The Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.
- 11027.04 The Engineer shall promptly make decisions relative to interpretation of the Contract Documents.

11028 LAND and RIGHTS-OF-WAY

- 11028.01 Prior to issuance of Notice to Proceed, the Owner shall obtain, or obtain access to, all land and rights-of-way necessary for carrying out and for the completion of the Work to be performed pursuant to the Contract Documents, unless otherwise mutually agreed.

11028.02 The Owner shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquired.

11028.03 The Contractor shall provide at the Contractor's own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities or for storage of materials.

11029 CLEAN UP and DUST CONTROL

11029.01 In addition to the requirements of the Contract Documents, Contractor shall maintain a clean, neat, and dust free work site as determined by the Engineer. Where Contractor's operations generate dust or debris in areas visible or accessible to the public, the Contractor shall sweep all sidewalks, streets, or similar areas at the end of each working day or more frequently as necessary to provide a clean and neat work area. The Contractor shall not drive or move any vehicle or truck within the Village where the wheels or tires carry onto, or deposit in any street, alley, or other public place, mud, dirt, sticky substances, litter or foreign matter of any kind. The Contractor shall operate any and all vehicles under the Contractor's control so as to not track or drop mud, stone, gravel, or other similar material on any street, highway, or other public place. It shall be the Contractor's responsibility who unlawfully drops or deposits mud, stone, gravel or other similar material, or permits the load or any portion thereof to be dropped or deposited upon any street, highway, or other public place, to immediately remove the same or cause it to be removed. Where sweeping is inadequate to provide a clean, dust free area, the Contractor shall employ other means such as washing or power-vacuuming to achieve results satisfactory to the Engineer. Where sweeping methods employed by the Contractor generate unacceptable airborne dust as determined by the Engineer, the Contractor shall employ alternative acceptable methods. Calcium chloride shall only be used when authorized by the Engineer.

11029.02 Payment for Clean up and Dust Control shall be included in payment for various other related items of work. No separate compensation will be made for this item.

11030 GUARANTY

11030.01 The Contractor shall guarantee all materials and equipment furnished and Work performed for a period of one (1) year from the date of Substantial Completion. The Contractor warrants and guarantees for a period of one (1) year from the date of Substantial Completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments, or other Work that may be made necessary by such defects, the Owner may do so and charge the

Contractor the cost thereby incurred. The Bid Guaranty and Contract Bond or Contract Bond shall remain in full force and effect through the guarantee period.

11031 DISPUTES and ARBITRATION

All claims, disputes, and other matters in question between the Contractor and the Owner arising out of, or relating to, the Contract Documents or the breach thereof, shall be settled, if possible, by negotiations and mutual agreement of the parties hereto. In the event of their inability to agree, the Engineer shall reduce the findings to writing and mail or otherwise furnish a copy thereof to the Contractor. All such disputes shall be decided by arbitration in accordance with the construction industry arbitration rules of the American Arbitration Association if the parties mutually agree, or in a court of competent jurisdiction within the state in which the Owner is located.

11031.02 The Contractor will carry on the Work and maintain the progress schedule during any arbitration or court proceedings, unless otherwise mutually agreed in writing.

11032 TAXES

11032.01 The Contractor will pay all sales, consumer, use, and other similar taxes required by the law of the place where the Work is performed.

11033 NON-DISCRIMINATION IN EMPLOYMENT

11033.01 The Contractor agrees that in the hiring of employees for the performance of Work under this Agreement or any sub-agreement, neither the Contractor, nor any Subcontractor, nor any person acting on behalf of either, shall by reason of race, creed, or color, discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform the Work to which the employment relates; nor shall the Contractor, or any Subcontractor, or any person acting on behalf of either, in any manner discriminate against or intimidate any employee hired for the performance of Work under this Agreement on account of race, creed, or color.

END OF GENERAL CONDITIONS

PART 4

PREVAILING WAGE

Prevailing Wage Determination Cover Letter

County: FRANKLIN ▼
Determination Date: 07/14/2020
Expiration Date: 10/14/2020

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 # : LCN01-2020fbLoc50

Craft : Asbestos Worker Effective Date : 03/25/2020 Last Posted : 03/25/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Asbestos Insulation Mechanic	\$32.33		\$7.45	\$7.24	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$50.11	\$66.28
Firestop Technician	\$32.33		\$7.45	\$7.24	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$50.11	\$66.28
Apprentice	Percent											
1st year	52.83	\$17.08	\$7.21	\$0.00	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$24.84	\$33.38
2nd year	63.23	\$20.44	\$7.21	\$0.91	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$29.11	\$39.33
3rd year	72.65	\$23.49	\$7.21	\$1.81	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$33.36	\$45.10
4th year	83.05	\$26.85	\$7.21	\$1.81	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$36.72	\$50.15

Special Calculation Note : Other is Industry Fund.

Ratio :

4 Journeymen to 1 Apprentice Company Wide
except no apprentice may work on the jobsite without a Mechanic

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 50 Zone 1

Change # : LCN0-2020fbLoc50

Craft : Asbestos Worker Effective Date : 07/09/2020 Last Posted : 07/09/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Asbestos Insulation Mechanic	\$33.57		\$7.45	\$7.60	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$51.71	\$68.50
Firestop Technician	\$33.57		\$7.45	\$7.60	\$0.44	\$0.00	\$2.50	\$0.15	\$0.00	\$0.00	\$51.71	\$68.50
Apprentice	Percent											
1st year	52.73	\$17.70	\$7.21	\$0.00	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$25.46	\$34.31
2nd year	63.10	\$21.18	\$7.21	\$0.95	\$0.40	\$0.00	\$0.00	\$0.15	\$0.00	\$0.00	\$29.89	\$40.48
3rd year	72.55	\$24.36	\$7.21	\$1.90	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$34.32	\$46.49
4th year	82.93	\$27.84	\$7.21	\$1.90	\$0.40	\$0.00	\$0.30	\$0.15	\$0.00	\$0.00	\$37.80	\$51.72

Special Calculation Note : Other is Industry Fund.

Ratio :

4 Journeymen to 1 Apprentice no apprentice may work on the jobsite without a Mechanic

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: 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
Apprentice	Percent											
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: Bricklayer Local 55

Change # : LCN01-2020fbLoc55

Craft : Bricklayer Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer	\$29.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.36	\$63.18
Lay Out Man	\$30.15		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.86	\$63.93
Saw man	\$30.15		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.86	\$63.93
Stone & Cement Mason	\$29.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.36	\$63.18
Pointer Caulker Cleaner Block Stone	\$29.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.36	\$63.18
Plaster	\$29.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.36	\$63.18
Swing Stage (Ground Floor thru 23 rd Floor)	\$30.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49.36	\$64.68
Swing Stage (24th Floor and Above)	\$31.65		\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$50.36	\$66.18
Apprentice Bricklayers & Stone & Pointer Caulker Cleaner	Percent											
1st 6 months	50.00	\$14.83	\$9.00	\$0.00	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.64	\$32.06
2nd 6 months	55.00	\$16.31	\$9.00	\$0.00	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.13	\$34.28
3rd 6 months	60.00	\$17.79	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.50	\$45.40
4th 6 months	65.00	\$19.27	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.98	\$47.62

5th 6 months	70.00	\$20.75	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.46	\$49.84
6th 6 months	75.00	\$22.24	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.95	\$52.07
7th 6 months	80.00	\$23.72	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.43	\$54.29
8th 6 months	90.00	\$26.68	\$9.00	\$8.89	\$0.82	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.40	\$58.74
MASON TRAINEES 1-90 Days	45.00	\$13.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13.34	\$20.01
90-365 Days	45.00	\$13.34	\$9.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.34	\$29.01
2nd YEAR	50.00	\$14.83	\$9.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.82	\$31.24

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

Ratio :

REQUIRED RATIO

- 1-2 Journeyman to 1 Apprentice
- 3- 6 Journeyman to 2 Apprentice
- 7-10 Journeyman to 3 Apprentice
- 11-15 Journeyman to 4 Apprentice

MASON TRAINEE REQUIRED RATIO

:

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

Special Jurisdictional Note :

Details :

MASON TRAINEE: 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 TRAINEE may work on job site only when a registered apprentice is on job and the ratios in above table will be strictly enforced.

Above Journeyman Rate:

Brick Power Saw Pay \$.50

Designated layout person \$.50

Swingstage Work \$1.00 at start, and additional \$2.00 at 24th floor

Prevailing Wage Rate

Skilled Crafts

Name of Union: Bricklayer Local 55 Tile Setter

Change # : LCN01-2020fbLoc55

Craft : Bricklayer Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer Tile Setter	\$27.44		\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.79	\$56.51
Marble Mason	\$27.44		\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.79	\$56.51
Terrazzo Worker	\$27.44		\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.79	\$56.51
Terrazzo Worker, Installation	\$27.44		\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.79	\$56.51
Apprentice	Percent											
1st 6 months	50.00	\$13.72	\$7.52	\$0.00	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21.82	\$28.68
2nd 6 months	55.00	\$15.09	\$7.52	\$0.00	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.19	\$30.74
3rd 6 months	60.00	\$16.46	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.81	\$40.05
4th 6 months	65.00	\$17.84	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.19	\$42.10
5th 6 months	70.00	\$19.21	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.56	\$44.16
6th 6 months	75.00	\$20.58	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.93	\$46.22
7th 6 months	80.00	\$21.95	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.30	\$48.28
8th 6 months	90.00	\$24.70	\$7.52	\$7.25	\$0.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.05	\$52.39

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 - 3 Journeyman to 1 Apprentice
4 - 8 Journeyman to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ATHENS, COSHOCTON, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HOCKING,

9 - 13 Journeyman to 3 Apprentice
14 - 18 Journeyman to 4 Apprentice

JACKSON, KNOX, LICKING, MADISON, MEIGS,
MORGAN, MUSKINGUM, NOBLE, PERRY,
PICKAWAY, PIKE, ROSS, UNION, VINTON,
WASHINGTON

Special Jurisdictional Note : Noble County: (Townships of Beaver, Buffalo, Seneca & Wayne)

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Bricklayer Local 55 Tile & Marble Finisher

Change # : LCN01-2020fbLoc55

Craft : Bricklayer Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Bricklayer Tile Marble Finisher	\$26.76		\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.46	\$48.84
Terrazzo Finisher	\$27.01		\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.71	\$49.22
Floor Grinder	\$27.31		\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.01	\$49.67
Base Grinder	\$27.51		\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.21	\$49.97
Apprentice	Percent											
1st 6 months	60.00	\$16.06	\$5.18	\$0.00	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21.70	\$29.72
2nd 6 months	65.00	\$17.39	\$5.18	\$0.00	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.03	\$31.73
3rd 6 months	70.00	\$18.73	\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.43	\$36.80
4th 6 months	75.00	\$20.07	\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.77	\$38.81
5th 6 months	80.00	\$21.41	\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.11	\$40.81
6th 6 months	90.00	\$24.08	\$5.18	\$3.06	\$0.46	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.78	\$44.83
Apprentice Improver	40.00	\$10.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.70	\$16.06

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 :

1-2 Journeyman to 1 Apprentice
3-5 Journeyman to 2 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ATHENS, COSHOCTON, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HOCKING, JACKSON, KNOX, LICKING, MADISON, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY,

PICKAWAY, PIKE, ROSS, UNION, VINTON,
WASHINGTON

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Carpenter Millwright Local 1090 Columbus

Change # : LCN01-2020fbLoc1241

Craft : Carpenter Effective Date : 05/07/2020 Last Posted : 05/07/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter Millwright	\$30.47		\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$53.99	\$69.22
Apprentice	Percent											
1st 6 months	60.00	\$18.28	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$41.80	\$50.94
2nd 6 months	65.00	\$19.81	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$43.33	\$53.23
3rd 6 months	70.00	\$21.33	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$44.85	\$55.51
4th 6 months	75.00	\$22.85	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$46.37	\$57.80
5th 6 months	80.00	\$24.38	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$47.90	\$60.08
6th 6 months	85.00	\$25.90	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$49.42	\$62.37
7th 6 months	90.00	\$27.42	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$50.94	\$64.65
8th 6 months	95.00	\$28.95	\$7.50	\$9.79	\$0.40	\$0.00	\$5.71	\$0.12	\$0.00	\$0.00	\$52.47	\$66.94

Special Calculation Note : Other is for UBC National Fund.

Ratio :

3 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FRANKLIN, GUERNSEY, LICKING, MADISON, MARION, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, UNION

Special Jurisdictional Note :

Details :

The term “Millwright and Machine Erectors” jurisdiction shall mean the unloading, hoisting, rigging, skidding, moving, dismantling, aligning, erecting, assembling, repairing, maintenance and adjusting of all structures, processing areas either under cover, underground or elsewhere, required to process material, handle, manufacture or service, be it powered or receiving power manually, by steam, gas, electricity, gasoline, diesel,

nuclear, solar, water, air or chemically, and in industries such as and including, which are identified for the purpose of description, but not limited to, the following: woodworking plants; canning industries; steel mills; coffee roasting plants; paper and pulp; cellophane; stone crushing; gravel and sand washing and handling; refineries; grain storage and handling; asphalt plants; sewage disposal; water plants; laundries; bakeries; mixing plants; can, bottle and bag packing plants; textile mills; paint mills; breweries; milk processing plants; power plants; aluminum processing or manufacturing plants; and amusement and entertainment fields. The installation of mechanical equipment in atomic energy plants; installation of reactors in power plants; installation of control rods and equipment in reactors; and installation of mechanical equipment in rocket missile bases, launchers, launching gantry, floating bases, hydraulic escape doors and any and all component parts thereto, either assembled, semi-assembled or disassembled. The installation of, but not limited to, the following: setting-up of all engines, motors, generators, air compressors, fans, pumps, scales, hoppers, conveyors of all types, sizes and their supports; escalators; man lifts; moving sidewalks; hosts; dumb waiters; all types of feeding machinery; amusement devices; mechanical pin setters and spotters in bowling alleys; refrigeration equipment; and the installation of all types of equipment necessary and required to process material either in the manufacturing or servicing. The handling and installation of pulleys, gears, sheaves, fly wheels, air and vacuum drives, worm drives and gear drivers directly or indirectly coupled to motors, belts, chains, screws, legs, boots, guards, booth tanks, all bin valves, turn heads and indicators, shafting, bearings, cable sprockets cutting all key seats in new and old work, troughs, chippers, filters, calendars, rolls, winders, rewinders, slitters, cutters, wrapping machines, blowers, forging machines, rams, hydraulic or otherwise, planning, extruder, ball, dust collectors, equipment in meat packing plants, splicing or ropes and cables. The laying-out, fabrication and installation of protection equipment including machinery guards, making and setting of templates for machinery, fabrication of bolts, nuts, pans, dripping of holes for any equipment which the Millwrights install regardless of materials; all welding and burning regardless of type, fabrication of all lines, hose or tubing used in lubricating machinery installed by Millwrights; grinding, cleaning, servicing and any machine work necessary for any part of any equipment installed by the Millwrights; and the break-in and trail run of any equipment or machinery installed by the Millwrights. It is agreed the Millwrights shall use the layout tools and optic equipment necessary to perform their work.

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 (*)		
Classification												
Carpenter	\$19.70		\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.90	\$35.75
Trainee	Percent											
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: Carpenter & Pile Driver Local 200

Change # : LCNO1-2020fbLoc200

Craft : Carpenter Effective Date : 05/07/2020 Last Posted : 05/07/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter	\$27.19		\$7.30	\$9.58	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$46.22	\$59.82
Pile Driver	\$29.71		\$7.30	\$9.58	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$48.74	\$63.59
Apprentice paid at % of their rate above	Percent											
1st 6 months	60.00	\$16.31	\$7.30	\$0.00	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$25.76	\$33.92
2nd 6 months	65.00	\$17.67	\$7.30	\$1.00	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$28.12	\$36.96
3rd 6 months	70.00	\$19.03	\$7.30	\$2.00	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$30.48	\$40.00
4th 6 months	75.00	\$20.39	\$7.30	\$2.00	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$31.84	\$42.04
5th 6 months	80.00	\$21.75	\$7.30	\$7.78	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$38.98	\$49.86
6th 6 months	85.00	\$23.11	\$7.30	\$8.23	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$40.79	\$52.35
7th 6 months	90.00	\$24.47	\$7.30	\$8.68	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$42.60	\$54.84
8th 6 months	90.00	\$24.47	\$7.30	\$8.68	\$0.40	\$0.00	\$1.65	\$0.10	\$0.00	\$0.00	\$42.60	\$54.84

Special Calculation Note : Other is UBC National Fund.

Ratio :

1 Journeyman to 1 Apprentice
Thereafter
2 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FRANKLIN, GUERNSEY,
LICKING, MADISON, MARION, MUSKINGUM,
MORGAN, NOBLE, PERRY, PICKAWAY, UNION

The first carpenter on the job shall be a journeyman.
The second carpenter employed may be an apprentice carpenter. After one (1) journeyman and one (1) apprentice are employed, each employer shall employ a

ratio of one (1) apprentice, when available, to two (2) journeyman.

Special Jurisdictional Note :

Details :

CARPENTERS duties shall include but not limited to the milling, fashioning, joining, assembling, erecting, fastening, or dismantling of scaffolding and of material of wood, plastic, metal, fiber, cork and composition, and all other substitute materials. The handling, cleaning, erecting, installing and dismantling of machinery, equipment and all materials used by carpenters.

The building and setting of all concrete forms and decking, and dismantling the same; the setting of templates for anchor bolts for structural members and for machinery, and the placing, leveling and bracing of these bolts; the making of all forms for bulkheads, figures, post, balusters and ornaments. The erection and installation of cooling towers assembled onsite. The building of all barricades and handling of rough lumber and drywall. The installation of all required blocking and all toilet accessories, including but not limited to grab bars, napkin dispensers and receptacles, mirrors and soap dispensers. The installation of metal studs and the welding of studs and other fastenings to receive material being applied by carpenters. The installation of all material used in drywall construction such as plasterboard, transite and other composition boards. The installation of carpet, artificial turf, wood and Resilient floors shall consist of and include the laying of all special designs of wood, wood block, wood composition, cork, linoleum, asphalt, mastic, plastic and rubber tile, whether nailed or laid in, or with linoleum paste or glue compositions. The installation of garage and overhead doors. The installation of fixtures, cabinets, shelving, racks, louvers, etc. The assembling and setting of all seats in theaters, halls, churches, schools, auditoriums, grandstands and other buildings.

Our claim of jurisdiction, therefore, extends over the following subdivisions of the trade. Carpenters and Joiners; Bridge, Dock and Wharf Carpenters, Divers, Underpinners, Timbermen and Core Drillers; Shipwrights, Boat Builders, Ship Carpenters, Joiners and Caulkers, Cabinet Makers, Bench Hands, Stair Builders; Millmen; Wood and Resilient Floor Layers and Finishers; Carpet Layers; Shinglers; Siders; Insulators; Acoustic and Drywall Applicators; Shorers and House Movers; Loggers; Lumber and Sawmill Workers; Furniture Workers; Reed and Rattan Workers; Shingle Weavers; Casket and Coffin Makers; Box Makers; Railroad Carpenters; and Car Builders, regardless of material used; and all those engaged in the operation of woodworking or other machinery required in the fashioning, milling or manufacturing of products used in the trade, or engaged as helpers to any of the above divisions or subdivisions, and the handling, erecting and installing of material on any of the above divisions or subdivisions; burning welding, rigging and the use of any instrument or tool for layout work incidental to the trade. When the term "Carpenter" and "Joiner" is used, it shall mean all the subdivisions of the trade.

PILEDRIVER:

Where piling is used in the construction and repair of all wharves, docks, piers, trestles, caissons, cofferdams, the erection of all sea walls and breakwaters.

The placing of all walling, bumper guards of wood or metal. The framing, boring, drilling or burning of all holes in the same, all tie and hog rods in connection with Piledrivers work.

The driving, bracing, plumbing, cutting-off and capping of all piling whether wood, steel sheeting, metal pipe piling, composite or concrete.

The heading and splicing of wood piling and the making of woodsheet piling, The welding, cutting or burning of any metal and wood piling and shoring and underpinning in connection with Piledriver work.

The loading and unloading of all piling and other material used in connection with Piledrivers work.

The loading, unloading, erecting, framing, dismantling, moving and handling of all drivers, derrick, cranes and other piledriving equipment used in the work. Drilling in piling or drilled in caissons where a steel liner is used.

All machinery used for handling spuds or anchors on floating equipment used in our work shall be operated by our members. Where swing lines or derricks are used, members shall be used as watchmen.

All underwater and marine work on all 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.

All clamming work that is done by floating derricks.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Carpenter & Piledriver SC District HevHwy

Change # : LCN01-2020fbLoc200

Craft : Carpenter Effective Date : 05/07/2020 Last Posted : 05/07/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Carpenter	\$29.71		\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$49.19	\$64.04
Piledriver	\$29.07		\$6.57	\$7.78	\$0.36	\$0.00	\$1.51	\$0.10	\$0.00	\$0.00	\$45.39	\$59.93
Apprentice	Percent											
1st 6 months	60.00	\$17.83	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$37.31	\$46.22
2nd 6 months	65.00	\$19.31	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$38.79	\$48.45
3rd 6 months	70.00	\$20.80	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$40.28	\$50.68
4th 6 months	75.00	\$22.28	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$41.76	\$52.90
5th 6 months	80.00	\$23.77	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$43.25	\$55.13
6th 6 months	85.00	\$25.25	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$44.73	\$57.36
7th 6 months	90.00	\$26.74	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$46.22	\$59.59
8th 6 months	95.00	\$28.22	\$7.50	\$9.58	\$0.40	\$0.00	\$1.88	\$0.12	\$0.00	\$0.00	\$47.70	\$61.82

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) :

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON, WASHINGTON

Special Jurisdictional Note : **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.

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 Hwy A

Change # : LCN01-2020fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2020 Last Posted : 05/21/2020

	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	\$29.96		\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.70	\$61.68
Apprentice	Percent											
1st year	50.00	\$14.98	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.72	\$39.21
2nd year	70.00	\$20.97	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.71	\$48.20
3rd year	90.00	\$26.96	\$9.50	\$6.77	\$0.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.70	\$57.19

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 # : LCN01-2020fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2020 Last Posted : 05/21/2020

	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	\$30.95		\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.70	\$63.17
Apprentice	Percent											
1st year	50.00	\$15.48	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.23	\$39.96
2nd year	70.00	\$21.66	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.42	\$49.25
3rd year	90.00	\$27.85	\$9.50	\$6.77	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.60	\$58.53

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 (Columbus)

Change # : LCN01-2019fbLoc132

Craft : Cement Effective Date : 06/01/2019 Last Posted : 05/23/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason	\$26.48		\$7.50	\$4.30	\$0.65	\$0.00	\$2.85	\$0.00	\$0.00	\$0.00	\$41.78	\$55.02
Apprentice	Percent											
1st yr	70.00	\$18.54	\$7.50	\$4.30	\$0.65	\$0.00	\$2.85	\$0.00	\$0.00	\$0.00	\$33.84	\$43.10
2nd yr	80.00	\$21.18	\$7.50	\$4.30	\$0.65	\$0.00	\$2.85	\$0.00	\$0.00	\$0.00	\$36.48	\$47.08
3rd yr	90.00	\$23.83	\$7.50	\$4.30	\$0.65	\$0.00	\$2.85	\$0.00	\$0.00	\$0.00	\$39.13	\$51.05

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) :

ASHLAND, COSHOCTON, CRAWFORD,
DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN,
GUERNSEY, HOCKING, KNOX, LICKING,
MADISON, MARION, MORROW, MUSKINGUM,
PERRY, PICKAWAY, RICHLAND, ROSS, UNION,
VINTON, WYANDOT

Special Jurisdictional Note :

Details :

Working on swing stage, slip scaffold or window jack scaffold shall receive the following rates:

\$.50 above the regular rate for heights up to fifty (50) feet above grade level

\$1.00 above the regular rate for heights over fifty (50) feet above grade level

Prevailing Wage Rate

Skilled Crafts

Name of Union: Cement Mason Statewide Hwy Exhibit A District III

Change # : LCN01-2019fbCementHwy

Craft : Cement Mason Effective Date : 05/01/2020 Last Posted : 04/30/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason	\$29.46		\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$47.76	\$62.49
Apprentice	Percent											
1st Year	70.00	\$20.62	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$38.92	\$49.23
2nd Year	80.00	\$23.57	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$41.87	\$53.65
3rd Year	90.00	\$26.51	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$44.81	\$58.07

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

Ratio :

1 Journeymen to 1 Apprentice
2 to 1 thereafter

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ATHENS,
AUGLAIZE, BELMONT, CARROLL, CHAMPAIGN,
CLARK, CLINTON, COSHOCTON, CRAWFORD,
DARKE, DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, GALLIA, GREENE, GUERNSEY,
HARDIN, HARRISON, HOCKING, HOLMES,
JACKSON, JEFFERSON, KNOX, LAWRENCE,
LICKING, LOGAN, MADISON, MARION, MEIGS,
MERCER, MIAMI, MONROE, MONTGOMERY,
MORGAN, MORROW, MUSKINGUM, NOBLE,
PERRY, PICKAWAY, PIKE, PREBLE, RICHLAND,
ROSS, SCIOTO, SHELBY, TUSCARAWAS, UNION,
VAN WERT, VINTON, WASHINGTON, WAYNE,
WYANDOT

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 HewHwy Exhibit B District III

Change # : LCN01-2020fbCementHewHwy

Craft : Cement Mason Effective Date : 05/01/2020 Last Posted : 04/30/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason	\$29.62		\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$47.92	\$62.73
Apprentice	Percent											
1st Year	70.00	\$20.73	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$39.03	\$49.40
2nd Year	80.00	\$23.70	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$42.00	\$53.84
3rd Year	90.00	\$26.66	\$8.25	\$7.15	\$0.65	\$0.00	\$2.25	\$0.00	\$0.00	\$0.00	\$44.96	\$58.29

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

Ratio :

1 Journeymen to 1 Apprentice
2 to 1 thereafter

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ALLEN, ASHLAND, ATHENS,
AUGLAIZE, BELMONT, CARROLL, CHAMPAIGN,
CLARK, CLINTON, COSHOCTON, CRAWFORD,
DARKE, DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, GALLIA, GREENE, GUERNSEY,
HARDIN, HARRISON, HOCKING, HOLMES,
JACKSON, JEFFERSON, KNOX, LAWRENCE,
LICKING, LOGAN, MADISON, MARION, MEIGS,
MERCER, MIAMI, MONROE, MONTGOMERY,
MORGAN, MORROW, MUSKINGUM, NOBLE,
PERRY, PICKAWAY, PIKE, PREBLE, RICHLAND,
ROSS, SCIOTO, SHELBY, TUSCARAWAS, UNION,
VAN WERT, VINTON, WASHINGTON, WAYNE,
WYANDOT

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

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 683 Inside

Change # : LCN02-2020fbbLoc683In

Craft : Electrical Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	\$34.50		\$10.10	\$7.56	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$55.56	\$72.81
Welding	\$35.50		\$10.10	\$7.59	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$56.59	\$74.34
Mdium Voltage Splicing	\$35.50		\$10.10	\$7.59	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$56.59	\$74.34
Over 100 feet	\$51.75		\$10.10	\$8.07	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$73.32	\$99.19
Level 1 CW 0 to 2000 hours	\$11.22		\$6.15	\$0.34	\$0.67	\$0.00	\$0.34	\$0.10	\$0.00	\$0.00	\$18.82	\$24.43
Level 2 CW 2001 to 4000 hours	\$12.03		\$6.15	\$0.36	\$0.67	\$0.00	\$0.36	\$0.10	\$0.00	\$0.00	\$19.67	\$25.69
Level 3 CW 4001 to 6000 hours	\$12.83		\$6.15	\$0.38	\$0.67	\$0.00	\$0.38	\$0.10	\$0.00	\$0.00	\$20.51	\$26.93
Level 4 CW 6001 to 8000 hours	\$14.43		\$6.15	\$0.43	\$0.67	\$0.00	\$0.43	\$0.10	\$0.00	\$0.00	\$22.21	\$29.43
Level 1 CE 8001 to 10000 hours	\$16.04		\$6.15	\$0.48	\$0.67	\$0.00	\$0.48	\$0.10	\$0.00	\$0.00	\$23.92	\$31.94
Level 2 CE 10,001 to 12,000 hours	\$17.64		\$6.15	\$0.53	\$0.67	\$0.00	\$0.53	\$0.10	\$0.00	\$0.00	\$25.62	\$34.44
Level 3 CE 12,001 to 14,000 hours	\$22.45		\$6.15	\$0.67	\$0.67	\$0.00	\$0.67	\$0.10	\$0.00	\$0.00	\$30.71	\$41.94
Apprentice	Percent											
0-1000 hrs	40.00	\$13.80	\$10.10	\$3.02	\$0.80	\$0.00	\$1.04	\$0.00	\$0.00	\$0.00	\$28.76	\$35.66

1st Period												
1001-2000 hrs 2nd Period	40.00	\$13.80	\$10.10	\$3.02	\$0.80	\$0.00	\$1.04	\$0.00	\$0.00	\$0.00	\$28.76	\$35.66
2001-3500 hrs 3rd Period	50.00	\$17.25	\$10.10	\$3.78	\$0.80	\$0.00	\$1.30	\$0.00	\$0.00	\$0.00	\$33.23	\$41.85
3501-5000 hrs 4th Period	55.00	\$18.98	\$10.10	\$4.16	\$0.80	\$0.00	\$1.43	\$0.00	\$0.00	\$0.00	\$35.46	\$44.95
5001-6500 hrs 5th Period	65.00	\$22.42	\$10.10	\$4.91	\$0.80	\$0.00	\$1.69	\$0.00	\$0.00	\$0.00	\$39.92	\$51.14
6501-8000 hrs 6th Period	80.00	\$27.60	\$10.10	\$6.05	\$0.80	\$0.00	\$2.08	\$0.00	\$0.00	\$0.00	\$46.63	\$60.43

Special Calculation Note : Other is Education Fund

Ratio :

1 to 3 Journeyman to 2 Apprentices
4 to 6 Journeyman to 4 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD,
FRANKLIN, MADISON, PICKAWAY*, UNION

Ratio

Construction Wireman and Construction Electrician

1 Journeyman to 2 Apprentices to 2 CW/CE

With a MAXIMUM of 6 CW/CE an on any jobsite

Construction Wireman and Construction Electricians
may work on residential projects without working under
the supervision of a Journeyman Wireman. On ALL
other job sites, Construction Wireman and Construction
Electricians CAN only be employed after an
APPRENTICE IS EMPLOYED on the job site.

Special Jurisdictional Note : In Pickaway County the following townships:

Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut, Washington.

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 683 Inside Lt Commercial South West

Change # : LCN02-2020fbLoc683In

Craft : Electrical Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrician	\$34.50		\$10.10	\$7.56	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$55.56	\$72.81
Welding	\$35.50		\$10.10	\$7.59	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$56.59	\$74.34
Medium Voltage Splicing	\$35.50		\$10.10	\$7.59	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$56.59	\$74.34
Over 100 feet	\$51.75		\$10.10	\$8.07	\$0.80	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$73.32	\$99.19
CE-3 12,001-14,000 Hrs	\$22.45		\$6.15	\$0.67	\$0.67	\$0.00	\$0.67	\$0.10	\$0.00	\$0.00	\$30.71	\$41.94
CE-2 10,001-12,000 Hrs	\$17.64		\$6.15	\$0.53	\$0.67	\$0.00	\$0.53	\$0.10	\$0.00	\$0.00	\$25.62	\$34.44
CE-1 8,001-10,000 Hrs	\$16.04		\$6.15	\$0.48	\$0.67	\$0.00	\$0.48	\$0.10	\$0.00	\$0.00	\$23.92	\$31.94
CW-4 6,001-8,000 Hrs	\$14.43		\$6.15	\$0.43	\$0.67	\$0.00	\$0.43	\$0.10	\$0.00	\$0.00	\$22.21	\$29.43
CW-3 4,001-6,000 Hrs	\$12.83		\$6.15	\$0.38	\$0.67	\$0.00	\$0.38	\$0.10	\$0.00	\$0.00	\$20.51	\$26.93
CW-2 2,001-4,000 Hrs	\$12.03		\$6.15	\$0.36	\$0.67	\$0.00	\$0.36	\$0.10	\$0.00	\$0.00	\$19.67	\$25.69
CW-1 0-2,000 Hrs	\$11.22		\$6.15	\$0.34	\$0.67	\$0.00	\$0.34	\$0.10	\$0.00	\$0.00	\$18.82	\$24.43
Apprentice	Percent											
0-1000 hrs 1st Period	40.00	\$13.80	\$10.10	\$3.02	\$0.80	\$0.00	\$1.04	\$0.00	\$0.00	\$0.00	\$28.76	\$35.66
1001-2000 hrs 2nd Period	40.00	\$13.80	\$10.10	\$3.02	\$0.80	\$0.00	\$1.04	\$0.00	\$0.00	\$0.00	\$28.76	\$35.66
2001-3500 hrs 3rd	50.00	\$17.25	\$10.10	\$3.78	\$0.80	\$0.00	\$1.30	\$0.00	\$0.00	\$0.00	\$33.23	\$41.85

Period												
3501-5000 hrs 4th Period	55.00	\$18.98	\$10.10	\$4.16	\$0.80	\$0.00	\$1.43	\$0.00	\$0.00	\$0.00	\$35.46	\$44.95
5001-6500 hrs 5th Period	65.00	\$22.42	\$10.10	\$4.91	\$0.80	\$0.00	\$1.69	\$0.00	\$0.00	\$0.00	\$39.92	\$51.14
6501-8000 hrs 6th Period	80.00	\$27.60	\$10.10	\$6.05	\$0.80	\$0.00	\$2.08	\$0.00	\$0.00	\$0.00	\$46.63	\$60.43

Special Calculation Note : Other is Education Fund

Ratio :

2 Apprentices for every 3 Journeyman Wireman
or fraction thereof;
1 to 3 Journeyman to 2 Apprentices
4 to 6 Journeyman to 4 Apprentices

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD,
FRANKLIN, MADISON, PICKAWAY*, UNION

**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.

Special Jurisdictional Note : In Pickaway County the following townships:

Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut, 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 fee), 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 :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 683 Voice Data Video

Change # : LCR01-2020fbLoc683VDV

Craft : Voice Data Video Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Electrical Installer Technician B	\$26.50		\$8.52	\$0.80	\$0.80	\$0.51	\$2.25	\$0.61	\$0.00	\$0.00	\$39.99	\$53.24
Installer Technician A	\$27.50		\$8.52	\$0.83	\$0.80	\$0.53	\$2.25	\$0.64	\$0.00	\$0.00	\$41.07	\$54.82
Cable Puller	\$13.72		\$8.52	\$0.41	\$0.80	\$0.26	\$2.25	\$0.32	\$0.00	\$0.00	\$26.28	\$33.14
Apprentices	Percent											
1st 750 hours	55.00	\$14.58	\$8.52	\$0.44	\$0.80	\$0.28	\$2.25	\$0.34	\$0.00	\$0.00	\$27.21	\$34.49
2nd 750 hours	60.00	\$15.90	\$8.52	\$0.48	\$0.80	\$0.31	\$2.25	\$0.37	\$0.00	\$0.00	\$28.63	\$36.58
3rd 750 hours	65.00	\$17.23	\$8.52	\$0.52	\$0.80	\$0.33	\$2.25	\$0.40	\$0.00	\$0.00	\$30.04	\$38.66
4th 750 hours	70.00	\$18.55	\$8.52	\$0.56	\$0.80	\$0.36	\$2.25	\$0.43	\$0.00	\$0.00	\$31.47	\$40.75
5th 750 hours	75.00	\$19.87	\$8.52	\$0.60	\$0.80	\$0.38	\$2.25	\$0.46	\$0.00	\$0.00	\$32.89	\$42.82
6th 750 hours	80.00	\$21.20	\$8.52	\$0.64	\$0.80	\$0.41	\$2.25	\$0.49	\$0.00	\$0.00	\$34.31	\$44.91

Special Calculation Note : Other is Holiday Pay. Vacation applies only to employees who work for one employer for a period of one year.

Ratio :

1 Apprentice for every 1 Installer Technician

Cable Pullers can only be employed after an apprentice is employed on the job

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY*, UNION

Special Jurisdictional Note : In Pickaway County the following townships: Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut, Washington.

Details :

An employee who is required to wear an electronic device after hours will receive an additional 1.00 per hour for all hours worked.

HOLIDAYS: Memorial Day, 4th of July, Labor Day, Thanksgiving Day, Christmas Day, New Years Day.

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

- Installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.
- Installation of conduit &/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 foot.
- Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit
- All HVAC control work.

TECHNICIAN (A) is a Technician B who holds a current Technician Certification from BICSI (Building Industry Consulting Service International, Inc.)

CABLE PULLERS are for the installation of cable from one termination point to another.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Electrical Local 71 High Tension Pipe Type Cable

Change # : LCN01-2019fbLoc7

Craft : Lineman Effective Date : 04/24/2019 Last Posted : 04/24/2019

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	\$43.48	\$6.00	\$1.30	\$0.43	\$0.00	\$10.00	\$0.35	\$0.00	\$0.00	\$61.56	\$83.30
Certified Lineman Welder	\$43.48	\$6.00	\$1.30	\$0.43	\$0.00	\$10.00	\$0.35	\$0.00	\$0.00	\$61.56	\$83.30
Certified Cable Splicer	\$43.48	\$6.00	\$1.30	\$0.43	\$0.00	\$10.00	\$0.35	\$0.00	\$0.00	\$61.56	\$83.30
Operator A	\$39.02	\$6.00	\$1.17	\$0.39	\$0.00	\$8.97	\$0.35	\$0.00	\$0.00	\$55.90	\$75.41
Operator B	\$34.60	\$6.00	\$1.04	\$0.35	\$0.00	\$7.96	\$0.35	\$0.00	\$0.00	\$50.30	\$67.60
Operator C	\$27.93	\$6.00	\$0.84	\$0.28	\$0.00	\$6.42	\$0.35	\$0.00	\$0.00	\$41.82	\$55.79
Groundman 0-12 months Exp	\$21.74	\$6.00	\$0.65	\$0.22	\$0.00	\$5.00	\$0.35	\$0.00	\$0.00	\$33.96	\$44.83
Groundman 0-12 months Exp w/CDL	\$23.91	\$6.00	\$0.72	\$0.24	\$0.00	\$5.50	\$0.35	\$0.00	\$0.00	\$36.72	\$48.68
Groundman 1 yr or more	\$23.91	\$6.00	\$0.72	\$0.24	\$0.00	\$5.50	\$0.35	\$0.00	\$0.00	\$36.72	\$48.68
Groundman 1 yr or more w/CDL	\$28.26	\$6.00	\$0.85	\$0.28	\$0.00	\$6.50	\$0.35	\$0.00	\$0.00	\$42.24	\$56.37
Equipment Mechanic A	\$34.60	\$6.00	\$1.04	\$0.35	\$0.00	\$7.96	\$0.35	\$0.00	\$0.00	\$50.30	\$67.60
Equipment Mechanic B	\$31.26	\$6.00	\$0.94	\$0.31	\$0.00	\$7.19	\$0.35	\$0.00	\$0.00	\$46.05	\$61.68
Equipment Mechanic C	\$27.93	\$6.00	\$0.84	\$0.28	\$0.00	\$6.42	\$0.35	\$0.00	\$0.00	\$41.82	\$55.79
X-Ray Technician	\$43.48	\$6.00	\$1.30	\$0.43	\$0.00	\$10.00	\$0.35	\$0.00	\$0.00	\$61.56	\$83.30

Apprentice	Percent											
1st 1000 hrs	60.00	\$26.09	\$6.00	\$0.78	\$0.26	\$0.00	\$6.00	\$0.35	\$0.00	\$0.00	\$39.48	\$52.52
2nd 1000 hrs	65.00	\$28.26	\$6.00	\$0.85	\$0.28	\$0.00	\$6.50	\$0.35	\$0.00	\$0.00	\$42.24	\$56.37
3rd 1000 hrs	70.00	\$30.44	\$6.00	\$0.91	\$0.30	\$0.00	\$7.00	\$0.35	\$0.00	\$0.00	\$45.00	\$60.21
4th 1000 hrs	75.00	\$32.61	\$6.00	\$0.98	\$0.33	\$0.00	\$7.50	\$0.35	\$0.00	\$0.00	\$47.77	\$64.07
5th 1000 hrs	80.00	\$34.78	\$6.00	\$1.04	\$0.35	\$0.00	\$8.00	\$0.35	\$0.00	\$0.00	\$50.52	\$67.92
6th 1000 hrs	85.00	\$36.96	\$6.00	\$1.11	\$0.37	\$0.00	\$8.50	\$0.35	\$0.00	\$0.00	\$53.29	\$71.77
7th 1000 hrs	90.00	\$39.13	\$6.00	\$1.17	\$0.39	\$0.00	\$9.00	\$0.35	\$0.00	\$0.00	\$56.04	\$75.61

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 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 Outside Utility Power

Change # : LCN01-2019fbLoc7

Craft : Lineman Effective Date : 04/24/2019 Last Posted : 04/24/2019

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	\$41.22	\$6.00	\$1.24	\$0.41	\$0.00	\$9.48	\$0.35	\$0.00	\$0.00	\$58.70	\$79.31
Substation Technician	\$41.22	\$6.00	\$1.24	\$0.41	\$0.00	\$9.48	\$0.35	\$0.00	\$0.00	\$58.70	\$79.31
Cable Splicer	\$43.14	\$6.00	\$1.29	\$0.43	\$0.00	\$9.92	\$0.35	\$0.00	\$0.00	\$61.13	\$82.70
Operator A	\$37.00	\$6.00	\$1.11	\$0.37	\$0.00	\$8.51	\$0.35	\$0.00	\$0.00	\$53.34	\$71.84
Operator B	\$32.78	\$6.00	\$0.98	\$0.33	\$0.00	\$7.54	\$0.35	\$0.00	\$0.00	\$47.98	\$64.37
Operator C	\$26.44	\$6.00	\$0.79	\$0.26	\$0.00	\$6.08	\$0.35	\$0.00	\$0.00	\$39.92	\$53.14
Groundman 0-12 months Exp	\$20.61	\$6.00	\$0.62	\$0.21	\$0.00	\$4.74	\$0.35	\$0.00	\$0.00	\$32.53	\$42.84
Groundman 0-12 months Exp w/CDL	\$22.67	\$6.00	\$0.68	\$0.23	\$0.00	\$5.21	\$0.35	\$0.00	\$0.00	\$35.14	\$46.48
Groundman 1 yr or more	\$22.67	\$6.00	\$0.68	\$0.23	\$0.00	\$5.21	\$0.35	\$0.00	\$0.00	\$35.14	\$46.48
Groundman 1 yr or more w/CDL	\$26.80	\$6.00	\$0.80	\$0.27	\$0.00	\$6.16	\$0.35	\$0.00	\$0.00	\$40.38	\$53.78
Equipment Mechanic A	\$32.78	\$6.00	\$0.98	\$0.33	\$0.00	\$7.54	\$0.35	\$0.00	\$0.00	\$47.98	\$64.37
Equipment Mechanic B	\$29.62	\$6.00	\$0.89	\$0.30	\$0.00	\$6.81	\$0.35	\$0.00	\$0.00	\$43.97	\$58.78
Equipment Mechanic C	\$26.44	\$6.00	\$0.79	\$0.26	\$0.00	\$6.08	\$0.35	\$0.00	\$0.00	\$39.92	\$53.14
Line Truck w/uuger	\$29.17	\$6.00	\$0.88	\$0.29	\$0.00	\$6.71	\$0.35	\$0.00	\$0.00	\$43.40	\$57.99
Apprentice	Percent										

1st 1000 hrs	60.00	\$24.73	\$6.00	\$0.74	\$0.25	\$0.00	\$5.69	\$0.35	\$0.00	\$0.00	\$37.76	\$50.13
2nd 1000 hrs	65.00	\$26.79	\$6.00	\$0.80	\$0.27	\$0.00	\$6.16	\$0.35	\$0.00	\$0.00	\$40.37	\$53.77
3rd 1000 hrs	70.00	\$28.85	\$6.00	\$0.87	\$0.29	\$0.00	\$6.64	\$0.35	\$0.00	\$0.00	\$43.00	\$57.43
4th 1000 hrs	75.00	\$30.91	\$6.00	\$0.93	\$0.31	\$0.00	\$7.11	\$0.35	\$0.00	\$0.00	\$45.62	\$61.07
5th 1000 hrs	80.00	\$32.98	\$6.00	\$0.99	\$0.33	\$0.00	\$7.59	\$0.35	\$0.00	\$0.00	\$48.24	\$64.72
6th 1000 hrs	85.00	\$35.04	\$6.00	\$1.05	\$0.35	\$0.00	\$8.06	\$0.35	\$0.00	\$0.00	\$50.85	\$68.37
7th 1000 hrs	90.00	\$37.10	\$6.00	\$1.11	\$0.37	\$0.00	\$8.53	\$0.35	\$0.00	\$0.00	\$53.46	\$72.01

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 Outside (Central OH Chapter)

Change # : LCR01-2019fbLoc71CentralOhio

Craft : Lineman Effective Date : 02/27/2019 Last Posted : 02/27/2019

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lineman	\$38.27	\$6.00	\$1.15	\$0.38	\$0.00	\$6.89	\$0.06	\$0.00	\$0.00	\$52.75	\$71.89
Traffic Signal & Lighting Journeyman	\$36.81	\$6.00	\$1.10	\$0.37	\$0.00	\$6.63	\$0.06	\$0.00	\$0.00	\$50.97	\$69.37
Equipment Operator	\$33.62	\$6.00	\$1.01	\$0.34	\$0.00	\$6.05	\$0.06	\$0.00	\$0.00	\$47.08	\$63.89
Groundman 0-12 months (W/O CDL)	\$20.39	\$6.00	\$0.61	\$0.20	\$0.00	\$3.67	\$0.06	\$0.00	\$0.00	\$30.93	\$41.13
Groundman 0-12 Months W/CDL	\$22.27	\$6.00	\$0.67	\$0.22	\$0.00	\$4.01	\$0.06	\$0.00	\$0.00	\$33.23	\$44.37
Groundman greater than 1 Year W/CDL	\$24.17	\$6.00	\$0.73	\$0.24	\$0.00	\$4.35	\$0.06	\$0.00	\$0.00	\$35.55	\$47.64
Traffic Signal Apprentices											
1st 1,000 hours	\$22.09	\$6.00	\$0.66	\$0.22	\$0.00	\$3.98	\$0.06	\$0.00	\$0.00	\$33.01	\$44.05
2nd 1,000 hours	\$23.93	\$6.00	\$0.72	\$0.24	\$0.00	\$4.31	\$0.06	\$0.00	\$0.00	\$35.26	\$47.23
3rd 1,000 hours	\$25.77	\$6.00	\$0.77	\$0.26	\$0.00	\$4.64	\$0.06	\$0.00	\$0.00	\$37.50	\$50.39
4th 1,000 hours	\$27.61	\$6.00	\$0.83	\$0.28	\$0.00	\$4.97	\$0.06	\$0.00	\$0.00	\$39.75	\$53.56
5th 1,000 hours	\$29.45	\$6.00	\$0.88	\$0.29	\$0.00	\$5.30	\$0.06	\$0.00	\$0.00	\$41.98	\$56.71
6th 1,000 hours	\$33.13	\$6.00	\$0.99	\$0.33	\$0.00	\$5.96	\$0.06	\$0.00	\$0.00	\$46.47	\$63.04

Apprentice Lineman	Percent											
1st 1,000 Hours	60.00	\$22.96	\$6.00	\$0.69	\$0.23	\$0.00	\$4.13	\$0.06	\$0.00	\$0.00	\$34.07	\$45.55
2nd 1,000 Hours	65.00	\$24.88	\$6.00	\$0.75	\$0.25	\$0.00	\$4.48	\$0.06	\$0.00	\$0.00	\$36.42	\$48.85
3rd 1,000 Hours	70.00	\$26.79	\$6.00	\$0.80	\$0.27	\$0.00	\$4.82	\$0.06	\$0.00	\$0.00	\$38.74	\$52.13
4th 1,000 Hours	75.00	\$28.70	\$6.00	\$0.86	\$0.29	\$0.00	\$5.17	\$0.06	\$0.00	\$0.00	\$41.08	\$55.43
5th 1,000 Hours	80.00	\$30.62	\$6.00	\$0.92	\$0.31	\$0.00	\$5.51	\$0.06	\$0.00	\$0.00	\$43.42	\$58.72
6th 1,000 Hours	85.00	\$32.53	\$6.00	\$0.98	\$0.33	\$0.00	\$5.86	\$0.06	\$0.00	\$0.00	\$45.76	\$62.02
7th 1,000 Hours	90.00	\$34.44	\$6.00	\$1.03	\$0.34	\$0.00	\$6.20	\$0.06	\$0.00	\$0.00	\$48.07	\$65.29

Special Calculation Note : Other is Safety & Education Fund.

Ratio :

1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ASHLAND, ATHENS, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, KNOX, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, RICHLAND, ROSS, SCIOTO, TUSCARAWAS, UNION, VINTON, WASHINGTON

Special Jurisdictional Note :

Details :

A groundman when directed shall assist a Journeyman Lineman, Traffic Signal and Lighting Journeyman or Equipment Operator in the performance of his/her work on the ground, including the use of hand tools. Under no circumstances shall this classification climb poles, towers, or work from an elevated platform or bucket truck. This classification shall not perform work normally assigned to an Apprentice.

No more than three (3) Groundmen shall work alone. Jobs with more that 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 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, TRUMBULL,
TUSCARAWAS, UNION, VINTON, WARREN,
WASHINGTON, WAYNE

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: Elevator Local 37

Change # : LCR01-2020fbLoc37

Craft : Elevator Effective Date : 01/22/2020 Last Posted : 01/22/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Elevator Mechanic	\$47.16		\$15.73	\$10.21	\$0.63	\$3.77	\$8.20	\$1.93	\$0.00	\$0.00	\$87.63	\$111.21
Helper	\$33.01		\$15.73	\$10.21	\$0.63	\$2.64	\$8.20	\$1.50	\$0.00	\$0.00	\$71.92	\$88.43
Apprentice	Percent											
Probationary Apprentice	50.00	\$23.58	\$0.00	\$0.00	\$0.00	\$1.41	\$0.00	\$0.00	\$0.00	\$0.00	\$24.99	\$36.78
1st year	55.00	\$25.94	\$15.73	\$10.21	\$0.63	\$1.56	\$8.20	\$1.28	\$0.00	\$0.00	\$63.55	\$76.52
2nd year	65.00	\$30.65	\$15.73	\$10.21	\$0.63	\$1.84	\$8.20	\$1.42	\$0.00	\$0.00	\$68.68	\$84.01
3rd year	70.00	\$33.01	\$15.73	\$10.21	\$0.63	\$1.98	\$8.20	\$1.50	\$0.00	\$0.00	\$71.26	\$87.77
4th year	80.00	\$37.73	\$15.73	\$10.21	\$0.63	\$2.26	\$8.20	\$1.64	\$0.00	\$0.00	\$76.40	\$95.26
Assistant Mechanic	80.00	\$37.73	\$15.73	\$10.21	\$0.63	\$3.02	\$8.20	\$1.64	\$0.00	\$0.00	\$77.16	\$96.02

Special Calculation Note : Other is for Holiday Pay

Ratio :

1 Journeyman to 1 Apprentice**
 1 Journeyman to 1 Helper**
 1 Journeyman to 1 Assistant Mechanic**

Jurisdiction (* denotes special jurisdictional note) :

ATHENS, CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HOCKING, JACKSON, KNOX, LAWRENCE, LICKING, LOGAN, MADISON, MARION, MEIGS, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, UNION, VINTON

Special Jurisdictional Note :

Details :

**Art. 10 Par. 2 Apprentice Work Qualifications:

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

Further, the Company may use as many Helpers and Apprentices as best suits his convenience under the direction of a Mechanic in wrecking old plants and in handling and hoisting material, and on foundation work.

When removing old and installing new cable on existing elevator installations, the Company may use two

Helpers or Apprentices to one Mechanic.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Glazier Local 372

Change # : LCN01-2020fbLoc372

Craft : Glazier Effective Date : 07/02/2020 Last Posted : 07/02/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Glazier	\$25.88		\$5.64	\$10.14	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.07	\$55.01
Apprentice	Percent											
1-750 hrs	50.00	\$12.94	\$5.64	\$2.84	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21.83	\$28.30
751-1500 hrs	60.00	\$15.53	\$5.64	\$2.84	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.42	\$32.18
1501-2250 hrs	65.00	\$16.82	\$5.64	\$2.84	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.71	\$34.12
2251-3000 hrs	70.00	\$18.12	\$5.64	\$2.84	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.01	\$36.06
3001-3750 hrs	75.00	\$19.41	\$5.64	\$6.55	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.01	\$41.71
3751-4500 hrs	80.00	\$20.70	\$5.64	\$6.55	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.30	\$43.66
4501-5250 hrs	85.00	\$22.00	\$5.64	\$6.55	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.60	\$45.60
5251-6000 hrs	90.00	\$23.29	\$5.64	\$6.55	\$0.41	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.89	\$47.54

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

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FAYETTE*, FRANKLIN, HOCKING, JACKSON, KNOX, LICKING, MADISON, MARION, MORROW, MUSKINGUM, PERRY, PICKAWAY, PIKE, ROSS, UNION, VINTON

Special Jurisdictional Note : Fayette County except the eastern portion with Route #141 being the dividing line.

Details :

A premium of one dollar (\$1.00) per hour above regular hourly rate of pay shall be paid for each hour worked by every employee from any mechanical lift or scaffold, either suspended or supported including the Hex type

scaffolding.

Prevailing Wage Rate Skilled Crafts

Name of Union: Ironworker Local 172

Change # : LCN01-2020fbLoc172

Craft : Ironworker Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Ironworker	\$30.75		\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$52.69	\$68.06
Rigger Welder Reinforcing Sheeter Fence Erector Machinery Mover	\$30.75		\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$52.69	\$68.06
Apprentice			Percent									
1st YEAR 0 - 6 Months	60.00	\$18.45	\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$40.39	\$49.61
2nd YEAR 13 - 18 Months	70.00	\$21.52	\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$43.47	\$54.23
3rd YEAR 25 - 30 Months	80.00	\$24.60	\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$46.54	\$58.84
4th YEAR 37 - 42 Months	90.00	\$27.67	\$8.30	\$9.50	\$1.14	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$49.62	\$63.45

Special Calculation Note :

Ratio :

Rod Work
3 Journeymen to 1 Apprentice

Structural Work
4 Journeymen to 1 Apprentice

Finishing, Steel Sash, Stairway and Ornamental
1 Journeymen to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN*, CLARK, CRAWFORD*,
DELAWARE, FAIRFIELD, FAYETTE*, FRANKLIN,
HARDIN*, HIGHLAND*, HOCKING, JACKSON*,
KNOX, LICKING, LOGAN*, MADISON*, MARION,
MORROW, MUSKINGUM*, PERRY, PICKAWAY,
PIKE, ROSS, UNION, VINTON, WYANDOT*

Sheet Gang

1 Apprentice for every sheeting gang per project

Special Jurisdictional Note : Champaign County Twps included: Wayne, Rush, Goshen. Crawford County Twps included: Bucyrus, Dallas, Jefferson, Jackson, Whetstone, Polk, Sandusky. Fayette County Twps included: Paint, Marion, Perry, Madison, Wayne, Union. Hardin County Twps included: McDonald, Taylorcreek, Hale, Dudley, Pleasant, Goshen, Blanchard, Lynn, Jackson, Buck, Cessna, Marion, Washington. Highland County Twps included: Madison. Jackson County Twps included: Liberty, Washington, Milton, Jackson, Coal, Wilkesville. Logan County Twps included: Monroe, Zane, Jefferson, Perry, Rush Creek, Bokes Creek. Madison County Twps included: Range, Paint, Fairfield, Sommerford, Jefferson, Pike, Canaan, Pleasant, Oak Run, Union, Deer Creek, Monroe, Darby. Pike County Twps included: Perry, Benton, Mifflin, Sunfish, Newton, Prebble, Pee Pee, Seal, Beaver, Jackson. Wyandot County Twps included: Jackson, Marseilles, Mifflin, Pitt, Antrim. Muskingum County includes: Jackson, Licking, Hope Well, Newton, Clay, Cass, Muskingum falls, Springfield, Madison, Washington, Wayne, Brush Creek.

Details :

Hot Pay \$1.00 above the journeymen rate: defined as a work area in which the temperature is in excess of 150 degrees F due to the presence of a furnace, smelter, incinerator, or other equipment that emits extreme heat.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Labor Hwy 3

Change # : LCN01-2020fbLocalHwy3

Craft : Laborer Group 1 Effective Date : 05/14/2020 Last Posted : 05/14/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Laborer Group 1	\$32.62		\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$43.97	\$60.28
Group 2	\$32.79		\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$44.14	\$60.54
Group 3	\$33.12		\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$44.47	\$61.03
Group 4	\$33.57		\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$44.92	\$61.71
Watch Person	\$25.35		\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$36.70	\$49.38
Apprentice	Percent											
0-1000 hrs	60.00	\$19.57	\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$30.92	\$40.71
1001-2000 hrs	70.00	\$22.83	\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$34.18	\$45.60
2001-3000 hrs	80.00	\$26.10	\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$37.45	\$50.49
3001-4000 hrs	90.00	\$29.36	\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$40.71	\$55.39
More than 4000 hrs	100.00	\$32.62	\$7.00	\$3.80	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$43.97	\$60.28

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, UNION, VAN WERT, VINTON,
 WARREN, WASHINGTON, WAYNE, WILLIAMS,
 WYANDOT

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, Guniting 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 423

Change # : LCN01-2019fbLoc423

Craft : Laborer Effective Date : 06/01/2019 Last Posted : 05/29/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Laborer Group 1	\$27.23		\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.43	\$52.05
Group 2	\$27.54		\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.74	\$52.51
Group 3	\$27.85		\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.05	\$52.98
Group 4	\$28.16		\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$39.36	\$53.44
Apprentice	Percent											
0-1000 hrs	60.00	\$16.34	\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$27.54	\$35.71
1001-2000 hrs	70.00	\$19.06	\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$30.26	\$39.79
2001-3000 hrs	80.00	\$21.78	\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$32.98	\$43.88
3001-4000 hrs	90.00	\$24.51	\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$35.71	\$47.96
More than 4000 hrs	100.00	\$27.23	\$7.00	\$3.70	\$0.40	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.43	\$52.05

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 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

FAIRFIELD, FAYETTE, FRANKLIN, HOCKING,
LICKING, MADISON, PICKAWAY, UNION

Special Jurisdictional Note :

Details :

Group 1:

General Laborers, Carpenter Tender, Cathodic Protection, Cleaning Debris, Cleaning of all Material, General Clean-up including Vacuum Cleaning, Scraping and Cleaning of Walls and Floors, Landscape, Installation and Removal of Fencing, Sod Layers, All Portable Heaters, Flagman, Loading and Unloading of all Trucks, Handling and conveying all Materials, Washing of all Windows, Conveyer Belt, All Water Pumps up to and including three (3) inch intake, Watchman, Water Boy and Tool Room Attendant.

Group 1- Swimming Pools, Pool Decks, Surrounding Sidewalk and Parking Garages.

Group 2:

Skid Steer, Concrete Specialists, Brick Tender, Stone Mason Tender, Plaster Tender, Mortar Mixer and Operator, Cement Mason Tender, Construction Specialist, All Scaffold Builders (Swinging Scaffolds), Lagging, Bush Hammering, Jack Hammer Operator, Air or Electric Pneumatic Tool Operator, Power Driven Tools, Power Buggy Operators, Pouring and Placement of all concrete, Fork Lift Operators, Power Wheelbarrow Operators, Asphalt and Blacktop Rakers, Wrecker/Demolition, Sand Blasting and Chipping, Welders on Demolition, Grade Checkers, a person on a bucket pouring concrete, Guniting Nozzle man, Wagon and Churn Drill Operator, Concrete Saw Operator, Brush Feeders on pulverizers, Pipe Layers, Bottom Man, Laser Gun, Burners, Sand Blasting of concrete, Vibrator Man, Steward, Signal Man, Caisson, Caisson Bottom Man, Piledrivers, Asbestos and Lead Abatement Laborers.

Hazardous Waste (Level B): Any work requiring the following protective equipment must be paid at Group 2 rate,

A protective suit and an Air Purifying Respirator (APR) with the appropriate filter canisters. The ensemble is used when contaminants are reliably known not to be hazardous to the skin and not IDLH (Immediately Dangerous To Life or Health) and correct filter protection is available. This ensemble offers adequate protection for many jobs. Heat stress may be a problem due to inherent restrictions to breathing in an APR. Also, normal job related injury risk will be nearly as high as for Level C Equipment.

Group 3 Hazardous (Level C): Any work requiring the following protective equipment must be paid at Group 3 rate,

A chemically resistant splash suit and a (SCBA) or Airline Respirator. This ensemble is required when the situation is very hazardous, such as oxygen deficient atmospheres, IDLH atmospheres, or confined space entries, but the risk of skin exposure is not as great as in Level D situations. Then Level C ensemble gives the second highest level of protection, but also puts physical stress on the worker; primarily heat stress, reduced vision, dexterity and mobility directly attributable to wearing of the protective equipment. Therefore, in addition to the hazardous material, the hazard of the normal job related injuries is greatly increased.

Group 4 Hazardous Waste (Level D) requiring the following protective equipment must be paid at Group 4 rate, Protective equipment is required when the area has been known to contain extremely toxic contaminants or contaminants unknown but may be expected to be extremely toxic and /or Immediately Dangerous to Life and Health (IDLH). This ensemble includes fully encapsulated chemical suit (moon suit), Self Contained Breathing Apparatus (SCBA), or Airline Fed Respirator, and various types and numbers of boots and gloves, cool vests and voice activated radios are optional equipment sometimes worn. Level D ensembles provide the highest level of protection from contaminants but places the greatest physical and mental stress on the worker. The claustrophobic environment of the moon suit causes anxiety in most people, which greatly increases the already inherent heat stress problems. Also, this ensemble reduces vision, mobility, dexterity, and communication capacity, all of which increases the risk of normal job related injuries, ie., slips, falls, caught between, etc

Hazardous Pay of \$0.25 per hour shall be paid in addition to classifications shown above

Swing Scaffolds (suspended by rope or pulley), and swing scaffolds for grain storage tank or grain elevators, when the work is performed at a height of fifty (50) feet or more above the foundations or grade level, whichever is higher. Caisson work and tunnel work (depth being 15 feet or deeper)

Hazardous Waste Removal & Lead Abatement Workers: Exclusive or "Hot" area with toxic or hazardous materials, when one of the following personal protective equipment ensembles will be required for necessary protection against toxic contaminants. All of the ensembles increase the risks of certain types of worker-related injuries. When Laborers complement another craft receiving premium rate of pay Laborers will also receive premium pay for this "HOT" type of work.

Prevailing Wage Rate

Skilled Crafts

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

Change # : LCN01-2020fbLoc18zone3

Craft : Operating Engineer Effective Date : 05/14/2020 Last Posted : 05/14/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	\$38.24		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.69	\$72.81
Class 2	\$38.12		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.57	\$72.63
Class 3	\$37.08		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.53	\$71.07
Class 4	\$35.90		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$51.35	\$69.30
Class 5	\$30.44		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$45.89	\$61.11
Class 6	\$38.49		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.94	\$73.18
Class 7	\$38.74		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.19	\$73.56
Class 8	\$39.24		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.69	\$74.31
Class 9	\$39.49		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.94	\$74.68
Apprentice	Percent											
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34
Field Mechanic Trainee												
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34

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 referral when they are available. An apprentice, while employed as part of a crew per Article VIII, paragraph

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,

77, will not be subject to the apprenticeship ratios in this collective bargaining agreement

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 :

**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 required to have CDL

Class 1 - Barrier Moving Machine; 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) Derricks (all types); Draglines Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Gradalls; Helicopter Operators; hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types); Hoists (with two or more drums in use): Hydraulic Gantry (lift system); Laser Finishing Machines; Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Engineers (Mechanic 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 work; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Tug Boats. Horizontal Directional Drill, Rough Terrain Fork-lift with Winch/Hoist, Laser Screed, and Like equipment; Compact Cranes, track or rubber over 4,000 pound capacity, self-erecting cranes: stationary, track or truck (all configurations) bucket trench machines (over 24 " wide).

Class 2 - Asphalt Pavers; Bobcat-type and/or skid steer loader with hoe attachment greater than 7000 lbs. Bulldozers; CMI type Equipment; Endloaders; Hydro Milling Machine; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Pettibone-Rail Equipment; Power Graders; Power Scoops; Power Scrapers; Push Cats; Vermeer Type Concrete Saw; All rotomills, grinders & planers of all types. Articulating/end dumps (minus \$4.00/hour from Class 2 rate)

Class 3 - 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 Drillers - all types (with integral power); Hoists (with one drum); House Elevators (except those automatic call button controlled); Man lifts; 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 Insert/Remover; Rotator (Lime-Soil Stabilizer); Submersible Pumps (4 inches and over discharge); Switch & Tie Tampers (without lifting and aligning device); Trench Machines (24 inches and under); Utility Operators; Material hoist/elevators.

Class 4 - Ballast Re-locator; Backfillers and Tampers; Batch Plant Operators; Bar and Joint Installing Machines; Bull Floats; Burlap and Curing Machines; Clefplanes; Compressors, on building construction; Concrete Spreader; Conveyors, used for handling building materials; Concrete Mixers, one bag capacity (side loader); Concrete Mixers, capacity more than one bag; Crushers; Deck Hands; Drum Fireman (in Asphalt Plant); Farm type tractors pulling attachments; Finishing Machines; Form Trenchers; Generators; Guniting Machines; Hydro-

Seeders; Pavement Breakers (hydraulic or cable); Post Drivers; Post Hole Diggers; Pressure Pumps (over 1/2 inch discharge); Road Widening Trenchers; Rollers (except asphalt); All Concrete pumps (without Boom with 4 inch or smaller systems); Self-Propelled Power Spreaders; Concrete Spreaders; Self-Propelled Sub-graders; Shotcrete Machines; Tire Repairmen; Tractors, pulling sheepfoot rollers or graders; VAC/ALLS; Vibratory Compactors, with integral power; Welder Operators.

Class 5 - Boilers (less than 15 lbs. pressure); 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); Signalmen, Submersible Pumps (under 4 inch discharge). Directional Drill Locator and Allen Screed Concrete Paver. Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add \$3.00/ hour), compact cranes; track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Class 7 - Boom & Jib 150 - 180 feet

Class 8 - Boom & Jib 180 - 249 feet

Class 9 - Boom & Jib 250 - or over

Prevailing Wage Rate

Skilled Crafts

Name of Union: Operating Engineers - HevHwy Zone II

Change # : LCN01-2020fbLoc18hevhwyII

Craft : Operating Engineer Effective Date : 05/14/2020 Last Posted : 05/14/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Operator Class 1	\$38.24		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.69	\$72.81
Class 2	\$38.12		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.57	\$72.63
Class 3	\$37.08		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.53	\$71.07
Class 4	\$35.90		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$51.35	\$69.30
Class 5	\$30.44		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$45.89	\$61.11
Class 6	\$38.49		\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.94	\$73.18
Apprentice	Percent											
1st Year	50.00	\$19.12	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.57	\$44.13
2nd Year	60.00	\$22.94	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.39	\$49.87
3rd Year	70.00	\$26.77	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.22	\$55.60
4th Year	80.00	\$30.59	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$46.04	\$61.34
Field Mech Trainee Class 2												
1st year	49.85	\$19.06	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$34.51	\$44.04
2nd year	59.80	\$22.87	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$38.32	\$49.75
3rd year	69.77	\$26.68	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$42.13	\$55.47
4th year	79.75	\$30.50	\$8.51	\$6.00	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$45.95	\$61.19

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 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 1 - Air Compressors on Steel Erection; Barrier Moving Machine; Boiler Operators, on Compressors or Generators, when mounted on a rig; Cableways, Combination Concrete mixers & Towers; Concrete Pumps; Concrete Plants (over 4 yd capacity); Cranes (all types, including Boom Trucks, Cherry Pickers); Derricks; Draglines, Dredgers (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, on shaft or tunnel work; Hydraulic Gantry (lifting system); Industrial - Type Tractors; Jet Engine Dryers (D8 or D9), Diesel Tractors; Locomotives (standard gage); Maintenance Operators (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); Side Booms; Slip Form Pavers; Tower Dericks; Tree Shredders; Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators. Rough Terrain Fork-lift with Winch/Hoist; Compact Cranes, track rubber over 4,000 pound capacity, self-erecting cranes; stationary, track or truck (all configurations) Bucket trench machines (over 24 inches wide).

Class 2 - 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; Endloaders; Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Maintenance Operators, Class B (Portage and Summit Counties only); Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Trench Machines (24inch wide and under); Vermeer Type Concrete saw. Material Transfer Equipment (Shuttle buggy) Asphalt; All rotomills,grinders and planers of all types. Horizontal Directional Drill (Over 50,000 ft.lbs.thrust and over)

Class 3 - A-Frames; Air Compressors, on tunnel work (low Pressure); Asphalt Plant Engineers; Bobcat-type and/or skid steer loader with or without attachments; Power Boilers (15 lbs pressure and over); Highway Drills (all types); Rollers, asphalt; Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Inserter/Remover; Rotator (lime-soil Stabilizer), Switch & Tie Tampers (without lifting and aligning device); Locomotives (narrow gage); Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Utilities Operators, (small equipment); Welding Machines; Material hoist/elevators. Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

Class 4 -Ballast Re-locator; Backfillers, Batch Plants; Bar and Joint Installing Machines; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yd and under); Conveyors (highway); Concrete Saws (multiple); Crushers; Deckhands; Farm type tractors, with attachments (highway), except masonry; Finishing Machines; Firemen, Floating Equipment (all types); Fork Lifts (highway); Form Trenchers; Hydro Hammers; Hydro Seeders; Pavement Breakers; Plant Mixers; Post Drivers; Post Hole Diggers (power auger); Power Brush Burners; Power Form Handling Equipment; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-

Graders; Tractors, pulling sheepsfoot rollers or graders; Steam Firemen; Vibratory Compactors, with integral power.

Class 5 - Compressors (portable, Sewer, Heavy and Highway); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters; Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalmen; Drum Fireman (in Asphalt Plant); Oil Heaters (Asphalt Plant); Tire Repairmen; VAC/ALLS; Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add \$3.00/ hour), compact cranes: track or rubber under 4,000 pounds.

Class 6 - Master Mechanic

Prevailing Wage Rate

Skilled Crafts

Name of Union: Painter Local 1275

Change # : LCN02-2020fbLoc1275

Craft : Drywall Finisher Effective Date : 05/01/2020 Last Posted : 04/30/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Drywall Finisher	\$25.56		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.06	\$52.84
Drywall Taper	\$25.56		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.06	\$52.84
Drywall Sanders	\$24.91		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.41	\$51.87
Drywall, Use of Mechanical or Pneumatic Tools	\$26.06		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.56	\$53.59
Apprentice	Percent											
1st 0-1500 hrs	60.00	\$15.34	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.30	\$29.96
2nd 1501-3000 hrs	70.00	\$17.89	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.85	\$33.80
3rd 3001-4500 hrs	80.00	\$20.45	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.41	\$37.63
4th 4501-6000 hrs	90.00	\$23.00	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29.96	\$41.47

Special Calculation Note :

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, KNOX, LICKING, MADISON, MUSKINGUM, PERRY, PICKAWAY, ROSS, UNION

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Painter Local 1275

Change # : LCR01-2020scLoc1275

Craft : Painter Effective Date : 05/01/2020 Last Posted : 04/30/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Brush Roll	\$25.16		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.66	\$52.24
Paperhanger Wall Washer	\$25.16		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.66	\$52.24
Spray Painter	\$25.66		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.16	\$52.99
Structural Steel Swing Stage	\$25.46		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.96	\$52.69
Sandblast steam Clean Water Blasting (3500 PSI and Over) and Hazardous	\$25.86		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.36	\$53.29
Stacks and towers	\$28.67		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.17	\$57.51
Tanks - All Tanks 50,000 gallon capacity or more	\$28.67		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.17	\$57.51
Apprentice	Percent											
0-1500 hrs	60.00	\$15.10	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.06	\$29.60
1501-3000 hrs	70.00	\$17.61	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.57	\$33.38
3001-4500 hrs	80.00	\$20.13	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.09	\$37.15
4501-6000 hrs	90.00	\$22.64	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29.60	\$40.93

Special Calculation Note :

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, KNOX, LICKING, MADISON, MUSKINGUM, PERRY, PICKAWAY, ROSS, UNION

Special Jurisdictional Note :**Details :**

Heavy Highway Class 1 are qualified painters,blasters,riggers.

Class 2 Equipment Tenders /or containment Builders are hired to tend employers equipment also engage in the building & moving of containment systems.

Class 3 support personnel will perform Quality control duties,clean abrasive blast materials, load and unload trucks, handle all materials, man safety boats, & handle traffic control.

All Tanks 50,000 gallon capacity or more will be at the tank stated rate.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Painter Local 1275 HevHwy

Change # : LCN02-2020fbLoc1275

Craft : Painter Effective Date : 05/01/2020 Last Posted : 04/30/2020

	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	\$34.64		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49.14	\$66.46
Painter Bridges Class 1 Qualified Painters Blasters Riggers	\$34.64		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49.14	\$66.46
Painter Bridges Class 2 Equipment Tenders and/or Containment Builders	\$27.71		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.21	\$56.07
Painter Bridges Class 3 Support Personal	\$22.52		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.02	\$48.28
Apprentice	Percent											
1st 0-1500 hrs	60.00	\$20.78	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.74	\$38.14
2nd 1501-3000 hrs	70.00	\$24.25	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.21	\$43.33
3rd 3001-4500 hrs	80.00	\$27.71	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.67	\$48.53
4th 4501-6000 hrs	90.00	\$31.18	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.14	\$53.72

Special Calculation Note :

Ratio :

Jurisdiction (* denotes special jurisdictional note) :

1 Journeyman to 1 Apprentice

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN,
KNOX, LICKING, MADISON, MUSKINGUM,
PERRY, PICKAWAY, ROSS, UNION

Special Jurisdictional Note :

Details :

Heavy Highway Class 1 are qualified painters,blasters,riggers. Class 2 Equipment Tenders /or containment Builders are hired to tend employers equipment also engage in the building & moving of containment systems. Class 3 support personnel will perform Quality control duties,clean abrasive blast materials, load and unload trucks, handle all materials, man safety boats, & handle traffic control.

Prevailing Wage Rate

Skilled Crafts

Name of Union: Painter Local 1275 Industrial

Change # : LCR02-2020fbLoc1275

Craft : Painter Effective Date : 05/01/2020 Last Posted : 04/30/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Painter Brush Roll	\$25.86		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.36	\$53.29
Power Toll Cleaninr	\$25.86		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.36	\$53.29
Spray Painting	\$26.36		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.86	\$54.04
Sand Blast, Steam Clean & Pressure Washing Above 3500 PSI	\$26.56		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.06	\$54.34
Stacks and towers	\$28.67		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.17	\$57.51
Tanks - All Tanks 50,000 gallon capacity or more	\$28.67		\$5.74	\$8.31	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.17	\$57.51
Apprentice	Percent											
0-1500 hrs	60.00	\$15.52	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.48	\$30.23
1501-3000 hrs	70.00	\$18.10	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.06	\$34.11
3001-4500 hrs	80.00	\$20.69	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.65	\$37.99
4501-6000 hrs	90.00	\$23.27	\$5.74	\$0.77	\$0.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.23	\$41.87

Special Calculation Note :

Ratio :

1 Journeyman to 1 Apprentice

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, KNOX, LICKING, MADISON, MUSKINGUM,

PERRY, PICKAWAY, ROSS, UNION

Special Jurisdictional Note :**Details :**

Definition of Industrial Classification:

Industrial Facilities to be included in the Industrial Classification shall include; Water Treatment, Waste Water Treatment, Natural Gas and related facilities, refineries, transmission pipe lines, electrical transmission towers and or switching /sub stations and Power Plants.

Exclusions from the industrial classification are Power Plants that generate power to a single customer; such as an emergency power supplier or a Hospital, Information Technology Facility, Sporting/Event or Arena/Stadium type facility. This exclusion would also be given to any commercial office space located within the facilities property. The excluded spaces shall be done under the Commercial Wage rates.

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 (*)		
Classification											
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	\$15.90	\$1.33	\$0.14	\$0.00	\$0.31	\$0.00	\$0.43	\$0.00	\$0.00	\$18.11	\$26.06

Fabrication/ Erector Class B											
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 that 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 (Columbus)

Change # : LCN01-2017fbLoc132

Craft : Plasterer Effective Date : 07/26/2017 Last Posted : 07/26/2017

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plasterer	\$24.04		\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$37.44	\$49.46
Apprentice	Percent											
1st 800 hrs	50.00	\$12.02	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$25.42	\$31.43
2nd 800 hrs	60.00	\$14.42	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$27.82	\$35.04
3rd 800 hrs	70.00	\$16.83	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$30.23	\$38.64
4th 800 hrs	80.00	\$19.23	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$32.63	\$42.25
5th 800 hrs	90.00	\$21.64	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$35.04	\$45.85
6th 800 hrs	95.00	\$22.84	\$6.90	\$4.00	\$0.50	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$36.24	\$47.66

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) :

ASHLAND, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HOCKING, KNOX, LICKING, MADISON, MARION, MORROW, MUSKINGUM, PERRY, PICKAWAY, RICHLAND, ROSS, UNION, VINTON, WYANDOT

Special Jurisdictional Note :

Details :

PLASTERER IMPROVERS:

Is a person who has skills between an Apprentice and a Journeyman can be signed in as an Improver. An Improver receives 85% of the current wage and pension. All other benefits are same as Journeyman. The Improver has the opportunity to advance to Journeyman level by:

- (1) Working through a trial period of no more than 2,000 hrs.
- (2) Attending all safety and upgrading classes held or required.

Working on swing stage, slip scaffold or window jack scaffold shall receive the following rates:

\$.50 above the regular rate for heights up to fifty (50) feet above grade level

\$1.00 above the regular rate for heights over fifty (50) feet above grade level

Prevailing Wage Rate

Skilled Crafts

Name of Union: Plumber Pipefitter Local 189

Change # : LCN02-2019fbLoc189

Craft : Plumber Pipefitter Effective Date : 12/11/2019 Last Posted : 12/11/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plumber Pipefitter	\$38.45		\$8.64	\$7.49	\$0.85	\$0.00	\$6.76	\$0.00	\$0.00	\$0.00	\$62.19	\$81.41
Heating Piping Refrigeration, Temperature Control, Air Conditioning Welder	\$38.45		\$8.64	\$7.49	\$0.85	\$0.00	\$6.76	\$0.00	\$0.00	\$0.00	\$62.19	\$81.41
Apprentice	Percent											
Apprentice												
1st Year	40.00	\$15.38	\$5.00	\$0.00	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21.23	\$28.92
2nd Year	50.00	\$19.23	\$8.64	\$5.60	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.32	\$43.93
3rd Year	55.00	\$21.15	\$8.64	\$5.60	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.24	\$46.81
4th Year	65.00	\$24.99	\$8.64	\$5.60	\$0.85	\$0.00	\$6.76	\$0.00	\$0.00	\$0.00	\$46.84	\$59.34
5th Year	80.00	\$30.76	\$8.64	\$5.60	\$0.85	\$0.00	\$6.76	\$0.00	\$0.00	\$0.00	\$52.61	\$67.99

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

Ratio :

Employees-----Journeyman to Apprentice
per Job

- 1) 1-0
- 2) 1-1
- 3) 2-1
- 4) 2-2
- 5) 3-2
- 6) 4-2
- 7) 4-3
- 8) 5-3
- 9) 6-3
- 10) 6-4
- 11) 7-4
- 12) 8-4

Jurisdiction (* denotes special jurisdictional note) :

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING,
LICKING, MADISON, MARION, PERRY,
PICKAWAY, ROSS, UNION

- 13) 8-5
- 14) 9-5
- 15) 10-5
- 16) 10-6
- 17) 11-6
- 18) 12-6
- 19) 12-7
- 20) 13-7
- 21) 14-7
- 22) 14-8
- 23) 15-8
- 24) 16-8
- 25) 16-9

Heating Piping refrigeration, Temperature Control, Air
Conditioning Ratio

(1) Additional Apprentice to (3) Journeymen thereafter
Employees Journeyman to Apprentice
per Job

- 1) Employee 1-0
- 2) Employees 1-1
- 3) Employees 2-1
- 4) Employees 2-2
- 5) Employees 3-2
- 6) Employees 4-2
- 7) Employees 5-2
- 8) Employees 5-3
- 9) Employees 6-3
- 10) Employees 7-3
- 11) Employees 8-3
- 12) Employees 8-4
- 13) Employees 9-4
- 14) Employees 10-4
- 15) Employees 11-4
- 16) Employees 11-5
- 17) Employees 12-5
- 18) Employees 13-5
- 19) Employees 14-5
- 20) Employees 14-6
- 21) Employees 15-6
- 22) Employees 17-5
- 23) Employees 18-5
- 24) Employees 18-6
- 25) Employees 19-6
- 26) Employees 20-6
- 28) Employees 22-6
- 29) Employees 22-7
- 30) Employees 23-7
- 31) Employees 23-7
- 32) Employees 25-7
- 33) Employees 26-7
- 34) Employees 26-8

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Roofer Local 86

Change # : OCRN02-2019fbLoc86

Craft : Roofer Effective Date : 10/16/2019 Last Posted : 10/16/2019

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Roofer	\$27.79		\$7.73	\$7.70	\$0.51	\$0.00	\$0.00	\$0.19	\$0.00	\$0.00	\$43.92	\$57.82
Apprentice	Percent											
1st YEAR	55.00	\$15.28	\$0.00	\$0.25	\$0.51	\$0.00	\$0.00	\$0.19	\$0.00	\$0.00	\$16.23	\$23.88
2nd YEAR	65.00	\$18.06	\$7.73	\$2.10	\$0.51	\$0.00	\$0.00	\$0.19	\$0.00	\$0.00	\$28.59	\$37.63
3rd YEAR	75.00	\$20.84	\$7.73	\$3.58	\$0.51	\$0.00	\$0.00	\$0.19	\$0.00	\$0.00	\$32.85	\$43.27
4th YEAR	85.00	\$23.62	\$7.73	\$5.06	\$0.51	\$0.00	\$0.00	\$0.19	\$0.00	\$0.00	\$37.11	\$48.92

Special Calculation Note : Other is R & E Trust and Assoc. Fund.

Ratio :

1 Journeymen to 1 Apprentices
per job site

Jurisdiction (* denotes special jurisdictional note) :

CHAMPAIGN, DELAWARE, FAIRFIELD, FAYETTE,
FRANKLIN, HARDIN, HOCKING, KNOX,
LICKING, LOGAN, MADISON, MARION,
MORROW, PERRY, PICKAWAY, PIKE, ROSS,
UNION, WYANDOT

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Sheet Metal Local 24 Columbus

Change # : LCR01-2020fbLoc24Col

Craft : Sheet Metal Worker Effective Date : 06/04/2020 Last Posted : 06/04/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sheet Metal Worker	\$31.49		\$9.37	\$11.94	\$1.01	\$0.00	\$3.63	\$0.00	\$0.00	\$0.00	\$57.44	\$73.18
Apprentice	Percent											
1 st Year A	50.00	\$15.75	\$7.72	\$1.81	\$0.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.07	\$33.95
1st Year B	55.00	\$17.32	\$7.72	\$1.99	\$0.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27.83	\$36.49
2nd Year A	60.00	\$18.89	\$8.75	\$7.58	\$0.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.02	\$45.47
2nd Year B	65.00	\$20.47	\$8.80	\$7.76	\$0.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.83	\$48.06
3rd Year A	70.00	\$22.04	\$8.94	\$8.35	\$1.01	\$0.00	\$2.54	\$0.00	\$0.00	\$0.00	\$42.88	\$53.90
3rd Year B	75.00	\$23.62	\$9.01	\$8.96	\$1.01	\$0.00	\$2.72	\$0.00	\$0.00	\$0.00	\$45.32	\$57.13
4th Year A	80.00	\$25.19	\$9.08	\$9.56	\$1.01	\$0.00	\$2.90	\$0.00	\$0.00	\$0.00	\$47.74	\$60.34
4th Year B	85.00	\$26.77	\$9.15	\$10.15	\$1.01	\$0.00	\$3.09	\$0.00	\$0.00	\$0.00	\$50.17	\$63.55

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

Ratio :

1 Journeyman to 1 Apprentice
 2-8 Journeymen to 2 Apprentices
 9-11 Journeymen to 3 Apprentices
 12-14 Journeymen to 4 Apprentices
 15-17 Journeymen to 5 Apprentices
 18-20 Journeymen to 6 Apprentices
 21-23 Journeyman to 7 Apprentices
 24-26 Journeyman to 8 Apprentices
 27-29 Journeymen to 9 Apprentices
 30-32 Journeymen to 10 Apprentices
 33-35 Journeymen to 11 Apprentices
 36-38 Journeymen to 12 Apprentices
 39-41 Journeymen to 13 Apprentices
 42-44 Journeymen to 14 Apprentices
 45-47 Journeymen to 15 Apprentices
 48-50 Journeymen to 16 Apprentices
 and so on

Jurisdiction (* denotes special jurisdictional note) :

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HOCKING, JACKSON, KNOX, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON

Special Jurisdictional Note :

Details :

Prevailing Wage Rate

Skilled Crafts

Name of Union: Sprinkler Fitter Local 669

Change # : LCN01-2020fbLoc669

Craft : Sprinkler Fitter Effective Date : 04/08/2020 Last Posted : 04/08/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sprinkler Fitter	\$40.40		\$10.23	\$6.80	\$0.52	\$0.00	\$5.12	\$0.10	\$0.00	\$0.00	\$63.17	\$83.37
Apprentice Indentured after April 1, 2013	Percent											
CILASS 1	45.00	\$18.18	\$7.75	\$0.00	\$0.52	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$26.55	\$35.64
CLASS 2	50.00	\$20.20	\$7.75	\$0.00	\$0.52	\$0.00	\$0.00	\$0.10	\$0.00	\$0.00	\$28.57	\$38.67
CLASS 3	54.38	\$21.97	\$10.23	\$6.80	\$0.52	\$0.00	\$1.15	\$0.10	\$0.00	\$0.00	\$40.77	\$51.75
CLASS 4	59.38	\$23.99	\$10.23	\$6.80	\$0.52	\$0.00	\$1.15	\$0.10	\$0.00	\$0.00	\$42.79	\$54.78
CLASS 5	64.38	\$26.01	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$45.06	\$58.06
CLASS 6	69.38	\$28.03	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$47.08	\$61.09
CLASS 7	74.38	\$30.05	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$49.10	\$64.12
CLASS 8	79.38	\$32.07	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$51.12	\$67.15
CLASS 9	84.38	\$34.09	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$53.14	\$70.18
CLASS 10	89.38	\$36.11	\$10.23	\$6.80	\$0.52	\$0.00	\$1.40	\$0.10	\$0.00	\$0.00	\$55.16	\$73.21

Special Calculation Note : \$0.10 for Other is National Fire Sprinkler Association

Ratio :

1 Journeyman 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, 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 :**

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 # : OCRO1-2019fbBldgHwy

Craft : Truck Driver Effective Date : 09/11/2019 Last Posted : 09/11/2019

	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	\$28.04		\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.14	\$57.16
Apprentice	Percent											
First 6 months	80.00	\$22.43	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.53	\$48.75
7-12 months	85.00	\$23.83	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.93	\$50.85
13-18 months	90.00	\$25.24	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.34	\$52.95
19-24 months	95.00	\$26.64	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.74	\$55.06
25-30 months	100.00	\$28.04	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.14	\$57.16

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 & HevHwy Class 2
Locals 20,40,92,92b,100,175,284,438,377,637,908,957

Change # : LCRO1-2019-fbBldgHevHwy

Craft : Truck Driver Effective Date : 10/16/2019 Last Posted : 10/16/2019

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
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)	\$28.46	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.56	\$57.79
Apprentice	Percent										
First 6 months	80.00	\$22.77	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$37.87	\$49.25
7-12 months	85.00	\$24.19	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$39.29	\$51.39
13-18 months	90.00	\$25.61	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$40.71	\$53.52
19-24 months	95.00	\$27.04	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$42.14	\$55.66
25-30 months	100.00	\$28.46	\$7.00	\$7.90	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$43.56	\$57.79

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,
COSHOCOTON, 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.



Important Notice

Prevailing Wage Threshold Levels

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.

“New” construction threshold for <i>Building Construction</i>:	\$250,000
“Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting” threshold level for <i>Building Construction</i>:	\$75,000

As of January 1, 2020:

“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:	\$93,292
“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:	\$27,950

- 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



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.

INDUSTRIAL COMPLIANCE**SECTIONS****RESOURCES****CONTACT US**

Many of our staff are teleworking to stop community spread of the coronavirus (COVID-19). Our office will also not be accepting walk-in customers. The Division is still operational, and customers will still be able to drop off plans, applications and other documents, but we ask that you first work through our web portal, where you can also submit payments. There are no convenience fees for online payment. Please call us at 614-644-2223 or email us at IC@com.state.oh.us with any questions. Thanks for your patience.

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

Certified Payroll Heading

Employer name and address: Company's full name and address. Indicate if the company is a subcontractor, if so list the name of the General or Prime. Project: Name and location of the project, including county. Contracting Public Authority: Name and address of the contracting public authority. Week Ending: Month, day, and year for last day of reporting period. Payroll # : Indicates 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 blank.

Information by Column

- 1. 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.
- 2. 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.
- 3. 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.
- 4. Project Total Hours : Total the hours entered for pay period.
- 5. 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.
- 6. Project Gross: Enter total gross wages earned on the project for straight time and overtime. Project hours X base rate should equal project gross.
- 7. 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.
- 8. Total Hours All Jobs: Total all hours worked during the pay period including non-prevailing wage jobs.
- 9. Total Gross All Jobs: Gross amount earned in the pay period for all hours worked.
- 10. Self explanatory.
- 11. Self explanatory.
- 12. Self explanatory.

CONTACT US

Division of Industrial Compliance & Labor
6606 Tussing Road
Reynoldsburg, OH 43068

Phone 614.644.2223
Fax 614.644.2618
Email IC@com.state.oh.us

Webmaster
Contact the Webmaster for Questions
or Comments on the Website:
webmaster@com.state.oh.us

CONNECT WITH US**LOOKUP SERVICES**

Registered Contractor List
Boiler Information Database
Building Code Compliance Electronic Plan
Submission
Board Of Building Appeals Case Lookup
Elevator Database Lookup

RESOURCES

Federal Wage and Hour
U.S. Consumer Product Safety
Commission
National Electric, Fire Alarm and Sprinkler
Codes
Minor Labor Law Poster
2017 Minimum Wage Poster
2018 Minimum Wage Poster

**ABOUT INDUSTRIAL
COMPLIANCE**

Director Sheryl Maxfield
Superintendent Geoff Eaton

Ohio.gov

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PART 5

TECHNICAL SPECIFICATIONS

SECTION 01 11 00

SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Appendix A includes a map of the Owner's sanitary sewer system. Pipe segment reference is a thirteen-character identification as defined in Sewer Specification 2, Sewer Video Recording and Inspection.
- B. Summary of Work: The Work required for each pipe segment is detailed below and shall be the basis of the Work. Approximate lengths of pipe lining and number of point repairs are provided below for reference.
 - 1. Approximate length of pipe lining:
 - a. 12-inch: 247 feet
 - b. 15-inch: 1,579 feet
 - c. 18-inch: 321 feet
 - 2. Approximate number of point repairs:
 - a. 10-inch: 2
 - b. 12-inch: 3
 - c. 15-inch: 4
 - 3. Approximate length of cleaning and inspection:
 - a. 10-inch: 125
 - b. 12-inch: 559
- C. Bid Item No. 1 – Pipe Segment STM018-STM021 Point Repair and Complete Inspection
 - 1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 12 inches
 - c. Length: 350 feet
 - 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 67 feet, downstream from STM021
 - c. Perform all required bypass pumping and flow control
 - d. Perform CCTV Visual Inspection
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- D. Bid Item No. 2 – Pipe Segment STM019-STM020 Line
 - 1. Pipe Information
 - a. Type: Reinforced concrete pipe
 - b. Diameter: 12 inches
 - c. Length: 20 feet

2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- E. Bid Item No. 3 – Pipe Segment STM020-STM018 Clean and Complete Inspection
1. Pipe Information
 - a. Type: Reinforced concrete pipe
 - b. Diameter: 12 inches
 - c. Length: 130 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform all required bypass pumping and flow control
 - c. Perform CCTV Visual Inspection
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- F. Bid Item No. 4 – Pipe Segment STM021-STM022 Point Repair and Complete Inspection
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 12 inches
 - c. Length: 42 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 22 and 24 downstream from STM021
 - c. Perform all required bypass pumping and flow control
 - d. Perform CCTV Visual Inspection
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- G. Bid Item No. 5 – Pipe Segment STM022-STM044 Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 505 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work

- H. Bid Item No. 6 – Pipe Segment STM026-STM028 Point Repair and Complete Inspection
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 250 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 67 and 125 downstream from STM028
 - c. Perform all required bypass pumping and flow control
 - d. Perform CCTV Visual Inspection
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- I. Bid Item No. 7 – Pipe Segment STM027-STM025 Point Repair
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 194 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 119 and 121 downstream from STM027
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- J. Bid Item No. 8 – Pipe Segment STM029-STM033A Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 374 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- K. Bid Item No. 9 – Pipe Segment STM030-STM029 Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 12 inches
 - c. Length: 36 feet

2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- L. Bid Item No. 10 – Pipe Segment STM033A-STM033 Line
 1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 18 inches
 - c. Length: 321 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- M. Bid Item No. 11 – Pipe Segment STM034-STM033 Clean and Complete Inspection
 1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 12 inches
 - c. Length: 39 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform all required bypass pumping and flow control
 - c. Perform CCTV Visual Inspection
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- N. Bid Item No. 12 – Pipe Segment STM040-STM042 Point Repair and Line
 1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 12 inches
 - c. Length: 82 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 109 downstream from STM040
 - c. Rehabilitate sewer using CIPP liner
 - d. Perform all required bypass pumping and flow control
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work

- O. Bid Item No. 13 – Pipe Segment STM041-STM054 Point Repair and Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 326 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 284 downstream from STM041
 - c. Rehabilitate sewer using CIPP liner
 - d. Perform all required bypass pumping and flow control
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- P. Bid Item No. 14 – Pipe Segment STM043A-STM043 Point Repair and Complete Inspection
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 10 inches
 - c. Length: Unknown
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Perform open cut point repair at approximately 32 and 74 feet, downstream from STM043
 - c. Perform all required bypass pumping and flow control
 - d. Perform CCTV Visual Inspection
 - e. Perform all required site restoration
 - f. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- Q. Bid Item No. 15 – Pipe Segment STM046-STM027 Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 243 feet
 2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work
- R. Bid Item No. 16 – Pipe Segment STM054-STM236 Line
1. Pipe Information
 - a. Type: Vitrified clay
 - b. Diameter: 15 inches
 - c. Length: 131 feet

2. Work to be Performed
 - a. Clean, cut roots, and remove encrustation
 - b. Rehabilitate sewer using CIPP liner
 - c. Perform all required bypass pumping and flow control
 - d. Perform all required site restoration
 - e. Perform all additional work referenced in the Contract Documents required to completely perform the Work

PART 2 PRODUCTS

2.1 GENERAL

- A. All materials used in the Work shall conform to the Contract Documents and the City of Columbus Construction and Material Specifications, latest edition, including all revisions, City Supplements, and Supplemental Specifications as applicable.

PART 3 EXECUTION

3.1 GENERAL

- A. All Work shall be executed in accordance with the Contract Documents and the City of Columbus Construction and Material Specifications, latest edition, including all revisions, City Supplements, and Supplemental Specifications as applicable. Further, Work shall be executed in accordance with applicable City of Columbus standard drawings and standard details, latest edition.

END OF SECTION

SEWER SPECIFICATION 0

SEWER SPECIFICATION DEFINITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. Unless defined in the General Conditions – if a part of the Contract Documents and which supersede the definitions below – the definitions in this Sewer Specification are applicable to the Work.

1.02 REFERENCES (Not Used)

1.03 DEFINITIONS

- A. CMS: City of Columbus Construction and Material Specifications, latest edition.
- B. Contract Documents: Bidding documents including advertisement for bids and instructions to bidders; bidding forms including bid guaranty and contract bond and bid; contract forms and general conditions including noncollusion affidavit, agreement, legal and fiscal officers, contract bond, notice of award, notice to proceed, change order, plans, specifications and supplemental specifications; and addenda.
- C. Contractor: The person, firm, or corporation with whom the Owner has executed an agreement.
- D. Engineer: The Village Engineer of the Village of Minerva Park, working under the supervision of the mayor or the mayor's designee(s).
- E. Owner: The Village of Minerva Park, Ohio.
- F. Project: The undertaking to be performed as provided in the Contract Documents.
- G. Work: All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

1.04	SYSTEM DESCRIPTION	(Not Used)
1.05	SUBMITTALS	(Not Used)
1.06	QUALITY ASSURANCE	(Not Used)
1.07	DELIVERY, STORAGE AND HANDLING	(Not Used)
1.08	PROJECT/SITE CONDITIONS	(Not Used)
1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)

1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)
2.03	MATERIALS	(Not Used)
2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)

PART 3 EXECUTION

3.01	ACCEPTABLE INSTALLERS	(Not Used)
3.02	EXAMINATION	(Not Used)
3.03	PREPARATION	(Not Used)
3.04	ERECTION	(Not Used)
3.05	INSTALLATION	(Not Used)
3.06	APPLICATION	(Not Used)
3.07	CONSTRUCTION	(Not Used)
3.08	REPAIR/RESTORATION	(Not Used)
3.09	RE-INSTALLATION	(Not Used)
3.10	FIELD QUALITY CONTROL	(Not Used)
3.11	ADJUSTING	(Not Used)
3.12	CLEANING	(Not Used)
3.13	DEMONSTRATION	(Not Used)
3.14	PROTECTION	(Not Used)
3.15	SCHEDULES	(Not Used)

END OF SECTION

SEWER SPECIFICATION 1

SEWER CLEANING

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, and equipment necessary to clean the sewers and manholes as specified within or as designated by the Village Engineer. Any sewer waste material disposal costs are to be included in this item.
- B. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02	REFERENCES	(Not Used)
1.03	DEFINITIONS	(Not Used)
1.04	SYSTEM DESCRIPTION	(Not Used)
1.05	SUBMITTALS	(Not Used)

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications: The sewer cleaning Contractor shall have a minimum of 3 years continuous successful experience in sewer cleaning similar to that required for this project.

1.07	DELIVERY, STORAGE AND HANDLING	(Not Used)
1.08	PROJECT/SITE CONDITIONS	(Not Used)
1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)
2.03	MATERIALS	(Not Used)

2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)

PART 3 EXECUTION

3.01	ACCEPTABLE INSTALLERS	(Not Used)
3.02	EXAMINATION	(Not Used)
3.03	PREPARATION	(Not Used)
3.04	ERECTION	(Not Used)
3.05	INSTALLATION	(Not Used)
3.06	APPLICATION	(Not Used)
3.07	CONSTRUCTION	(Not Used)
3.08	REPAIR/RESTORATION	(Not Used)
3.09	RE-INSTALLATION	(Not Used)
3.10	FIELD QUALITY CONTROL	(Not Used)
3.11	ADJUSTING	(Not Used)

3.12 CLEANING

- A. General: During sewer cleaning operation, the Contractor shall take precautions to protect the sewer from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically-propelled cleaning tools or any tools which retard the flow of water are used, the Contractor shall take precautions to ensure the water pressure created does not cause damage or flooding to any property. If during the cleaning process the Contractor identifies locations where point repairs will be required, the Contractor shall notify the Village Engineer for consideration of compensation.
- B. Maintenance Cleaning: The Contractor shall clean the sewers to an acceptable level, which is defined as removing all bricks, concrete, sand, dirt, roots, grease, mineral deposits, and any other solid or semisolid material to restore a minimum of 95 percent of the internal pipe height throughout for sewer diameters 60 inches and smaller and 98 percent for sewer diameters larger than 60 inches. If the pipe condition is such that cleaning may potentially cause a collapse, the pipe shall not be cleaned to the 95 percent or 98 percent condition. Designation of such a condition shall be subject to the Village Engineer's approval. The Contractor shall clean the sewer using hydraulic, high velocity hydraulic, mechanical sewer cleaning equipment, or physical means without damaging the sewer. The Contractor shall base the equipment selection on the condition of the sewer at the start of the cleaning project.
- C. Pre-Rehabilitation Cleaning: The Contractor shall clean all sewers to be televised and/or rehabilitated. All bricks, concrete, sand, dirt, roots, grease, mineral deposits, and any other solid or semisolid material shall be removed using hydraulic, high velocity

hydraulic, mechanical sewer cleaning equipment, or physical means without damaging the sewer so the invert is completely clear and free of deposits. Deposits not located in the invert shall be removed to the satisfaction of the Village Engineer for all sewer diameters. The Contractor shall base the equipment selection on the condition of the sewer at the start of the cleaning project.

1. Hydraulic: Hydraulic cleaning equipment shall be of a movable dam type and constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding the sewer. The movable dam shall be equal in diameter to the sewer being cleaned and shall provide a flexible scraper around the outer periphery to ensure removal of foreign material.
2. High Velocity Hydraulic: High velocity hydraulic sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a minimum of 600 feet of 3/4-inch inside diameter high pressure hose with a selection of two or more high velocity nozzles. The nozzles shall have a minimum capacity of 30 gallons per minute (gpm) at a working pressure of 1,000 to 1,500 pounds per square inch (psi). The nozzles shall be capable of producing a scouring action from 15 degrees to 45 degrees in all size sewers. Equipment shall also include a high velocity gun for washing and scouring manhole walls and floor. The gun capacity shall be capable of producing flows form a fine spray to a long-distance solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically and driven hose reel. All controls shall be located so the equipment can be operated above ground. Unless otherwise approved by the Village Engineer, the cleaning process to be employed shall be performed in a step process: successive steps of lengths to a maximum of 50 feet longer than the preceding steps until the total length is cleaned. Each time this process is used to clean a section of sewer is considered a pass. If the sewer still requires cleaning after three successful passes, the sewer shall be considered heavy cleaning based on pre-cleaning videotape evaluation and the consensus of the Village Engineer.
3. Mechanical: Power rodding machines shall be either a sectional or continuous type capable of holding a minimum of 1,000 feet of rod. The machine shall have a positive rod drive and produce a minimum of 2,000 pound rod pull. The machine shall have a fully enclosed body and an automatic safety throw-out clutch or relief valve. Bucket machines will not be permitted. The Contractor shall obtain the Village Engineer's approval before beginning any mechanical cleaning process.
4. Root Removal: All roots shall be removed from the interior of the sewer by the following processes.
 - a. Mechanical: Root removal may include the use of mechanical devices, such as rodding machines, expanding root cutters and porcupines, and hydraulic cleaning equipment.
 - b. Chemical: Root removal may include the use of chemical treatments. The application of an approved label herbicide to the roots shall be in accordance with the manufacturer's recommendations in such a manner to prevent any damage to the sewer and surrounding vegetation. The Contractor shall replace any damaged sewer or vegetation. Chemical herbicides shall have no adverse effects on the materials used for sewer rehabilitation nor shall they interfere with bonding of rehabilitation

materials to the sewer wall. The Contractor shall follow manufacturer's recommendations for handling and applying the herbicide.

3.13 DEMONSTRATION

(Not Used)

3.14 PROTECTION

- A. Material Removal and Disposal: All material resulting from the cleaning operation shall be removed at the downstream manhole of the sewer section being cleaned. All materials shall become the Contractor's property and shall be removed from the site at the end of each work day.

3.15 SCHEDULES

(Not Used)

END OF SECTION

SEWER SPECIFICATION 2

SEWER VIDEO RECORDING AND INSPECTION

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, and equipment necessary to inspect the sewer as shown on the drawings (if applicable) and as specified herein or as designated by the Village Engineer.
- B. Video recording and inspection performed after sewer rehabilitation work must be reviewed and approved by the Village Engineer before the Village accepts rehabilitation work. The video recording shall be performed in the downstream direction where possible and in the same direction for before and after inspections.
- C. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES (Not Used)

1.03 DEFINITIONS (Not Used)

1.04 SYSTEM DESCRIPTION (Not Used)

1.05 SUBMITTALS

- A. Header Sheet: Header sheets shall be submitted with each video recording.
 - 1. All header sheets accompanying video recordings shall have proper information entered for the following fields.
 - a. Surveyor Name: Name of technician holding NASSCO certification.
 - b. Certificate Number: Surveyor's NASSCO certification number.
 - c. System Owner: Village of Minerva Park.
 - d. Drainage Basin.
 - e. Pipe Segment Reference: The segment reference shall generally be a total of 13 characters: the 6-character upstream manhole designation followed by a colon followed by the 6-character downstream manhole designation. Example: STM002:STM001.
 - f. Date: Date of TV inspection.
 - g. Time: Time of TV inspection.
 - h. Location: Street address of house nearest to beginning manhole.
 - i. Locality: Minerva Park.
 - j. Further Location Details.
 - k. Upstream Manhole: The naming convention to be used shall be the complete 3-character structure number.
 - l. Rim to Invert, Upstream Manhole: Depth in feet and tenths of a foot.
 - m. Downstream Manhole: The naming convention to be used shall be the complete 3-character structure number.

- n. Rim to Invert, Downstream Manhole: Depth in feet and tenths of a foot.
- o. Direction of Survey.
- p. Flow Control: Type of flow control used during TV inspection.
- q. Height: Diameter of sewer in inches.
- r. Width: Only required for non-circular sewers.
- s. Shape.
- t. Material.
- u. Pipe Joint Length: Length in feet and tenths of a foot.
- v. Total Length: Length, in feet and tenths of a foot, from record information.
- w. Length Surveyed: Length, in feet and tenths of a foot, from TV inspection.
- x. Year Installed: From record information, only required if known.
- y. Media Number.
- z. Pre-Cleaning: Type of pre-cleaning used before TV inspection.
- 2. Valid data for Date, Time, Upstream Manhole, and Downstream Manhole is required. Header sheets and video inspections with invalid data for these fields will be rejected.

B. Logs: The Contractor shall maintain written or computer-generated logs which shall be compiled into a final report. Two copies of the final report shall be submitted. The logs shall show the location, in relation to starting manhole, of each of the following:

- 1. Infiltration point.
- 2. Laterals.
- 3. Services.
- 4. Joints.
- 5. Voids.
- 6. Unusual conditions.
- 7. Roots.
- 8. Deposits.
- 9. Scale.
- 10. Corrosion.
- 11. Pipe changes in material, size, shape, and slope.
- 12. Other discernible features.

C. Video Recordings: Two copies of the video recordings shall be submitted.

- 1. Acceptable Media: Digital video disc (DVD) or external hard drive. The Village Engineer reserves the right to require video recordings to be resubmitted on a different medium if the video quality is insufficient on the original medium. Media shall be premium grade and previously unrecorded.
- 2. Cover Sheet: Cover sheets shall be submitted with each DVD. Cover sheets shall include the following information:
 - a. Contractor's name.
 - b. Project title, if applicable.
 - c. Date.
 - d. Pipe segment reference for each pipe segment on the DVD.
- 3. Display: Video recordings shall include a continuous on-screen display indicating pipe segment reference, distance from entering manhole, laterals, and

any pipe defects which shall be coordinated with the written or computer-generated logs.

4. Video Recording Organization: Video recordings shall be organized using the following file system. Each pipe segment reference shall have its own folder, named using the pipe segment reference with an underscore substituted for the colon (Example: STM002_STM001). Within each folder, the Contractor shall include the .ptd file, the .ptv or .mpg file, and all still images of defects encountered.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications: The sewer inspection Contractor shall have a minimum of 3 years continuous successful experience in sewer inspection similar to that required for this project. The sewer inspection shall be completed by an operator certified by NASSCO's Pipeline Assessment and Certification Program (PACP) using PipeTech® software.
- D. The Contractor shall document all internal sewer inspections using video recordings, digital photographs, and a database using PipeTech® software. All video recordings shall be MPEG-1, MPEG-2, or MPEG-4 format.

1.07	DELIVERY, STORAGE AND HANDLING	(Not Used)
1.08	PROJECT/SITE CONDITIONS	(Not Used)
1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)
2.03	MATERIALS	(Not Used)
2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	

- A. The television camera shall be specifically designed and constructed for sewer inspection with a capacity for 360 degree radial viewing and of proper height to allow inspection of

the sewer, service connections, and manhole structure including the cone section or corbel.

- B. The radial view camera shall be solid state color and have remote control of the rotational lens. The camera shall be capable of viewing the complete circumference of the sewer and manhole structure, including the cone section or corbel. Cameras incorporating mirrors for viewing sides or using exposed rotating heads are not acceptable. The camera lens shall be an auto-irising type with remote-controlled manual override.
- C. The camera light head shall include a high-intensity side viewing lighting system to allow illumination of internal sections of lateral sewer connections. Lighting for the camera shall illuminate the entire periphery of the sewer for a distance of 30 feet ahead of the camera. The camera shall have a minimum resolution of 600 lines and shall be operable in 100 percent humidity conditions. Communications shall be provided for controlling the winches, pumping unit, and monitor control.

2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS (Not Used)

3.02 EXAMINATION

- A. General
 1. The Contractor shall provide video recording and inspection for each pipe segment to be cleaned or rehabilitated.
 2. The Contractor shall determine the length of each pipe segment using a Kevlar tape.
 3. For maintenance cleaning, the maximum allowable flow is 20% of the pipe's original diameter. For rehabilitation work, the entire sewer perimeter shall be visible during the post-cleaning and post-rehabilitation sewer video recordings and inspections. The Contractor shall consider bypass pumping or alternate work hours during reduced flow conditions if the required flows cannot be maintained.
- B. Television Inspection
 1. Only one pipe segment may be inspected at a time, and the segment being inspected must be isolated from the sewer system.
 2. The camera shall be moved through the sewer with the direction of flow at a uniform rate with the camera lens located at the pipe's spring line. Video recording while the camera is moving at speeds greater than 30 feet per minute is not permitted. If access to a manhole is restricted or conditions within the sewer prevent inspection with the direction of flow, investigation against the direction

of flow is acceptable with the Village Engineer's approval. Pre-work and post-work inspections of pipe segments, if applicable, shall be performed in the same direction.

3. The Contractor shall document all visible internal defects within each pipe segment. The Contractor shall stop the camera, pan, tilt, and zoom to the defect, and code the defect according to PACP standards. The continuous defect code shall only be used for actual continuous defects and shall be coded with a start code and a finish code.
4. The Contractor shall record the condition of each manhole structure by panning and zooming from the manhole structure invert to obtain an image of the structure, including the cone section and corbel.
5. The Contractor shall record the condition of each lateral connection by panning and zooming to a distance of 5 feet into the lateral connection.
6. Measurement for location of laterals, defects, and other features shall be at the ground level using a metering device. Accuracy of the metering device shall be confirmed using a Kevlar tape. A measuring target or sealing packer in front of the camera shall be used as the measurement reference point and the meter reading shall show the location of the measurement reference point.
7. If sewer conditions prevent forward movement of the camera, the Contractor shall withdraw the camera and inspect the pipe segment from the opposite direction.

3.03	PREPARATION	(Not Used)
3.04	ERECTION	(Not Used)
3.05	INSTALLATION	(Not Used)
3.06	APPLICATION	(Not Used)
3.07	CONSTRUCTION	(Not Used)
3.08	REPAIR/RESTORATION	(Not Used)
3.09	RE-INSTALLATION	(Not Used)
3.10	FIELD QUALITY CONTROL	(Not Used)
3.11	ADJUSTING	(Not Used)
3.12	CLEANING	(Not Used)
3.13	DEMONSTRATION	(Not Used)
3.14	PROTECTION	(Not Used)
3.15	SCHEDULES	(Not Used)

END OF SECTION

SEWER SPECIFICATION 3
BYPASS PUMPING AND FLOW CONTROL

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials and equipment necessary to reduce, control, or eliminate flows via bypass pumping, chases, fluming or other appropriate methods through a segment or segments of pipe, or structure designated for inspection and/or rehabilitation. The Contractor shall be solely responsible for controlling and maintaining all sewage flows within the system while conducting work. Plugging of any sewer line shall not be permitted without bypass pumping.

B. Related Sections:

1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES (Not Used)

1.03 DEFINITIONS (Not Used)

1.04 SYSTEM DESCRIPTION (Not Used)

1.05 SUBMITTALS

- A. The Contractor shall submit to the Village Engineer a method of reducing, controlling, or eliminating the sewage flow that will include but is not limited to:

1. Proposed sequence of operations.
2. Sketches or drawings showing proposed locations of bypass sewer(s) and construction procedures for crossing streets
3. Right of Entry (ROE) agreements or similar authorization from private property owners should Contractor propose using areas outside Owner's right-of-way or easements.
4. Key operational factors, such as pump sizes and flow rates.
5. Locations of manholes from which sewage is to be pumped, locations of receiving manholes, and new manholes.
6. A contingency plan to prevent damage during high flows.
7. Method of handling traffic where streets are to be excavated.

- B. The Contractor shall submit a copy of all property owner/resident notifications and door hangers to the Village Engineer prior to notification distribution as specified in Paragraph 3.03.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.

1.07 DELIVERY, STORAGE AND HANDLING (Not Used)

1.08 PROJECT/SITE CONDITIONS

- A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.

1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)
2.03	MATERIALS	(Not Used)
2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)

PART 3 EXECUTION

3.01	ACCEPTABLE INSTALLERS	(Not Used)
3.02	EXAMINATION	(Not Used)

3.03 PREPARATION

- A. Traffic Control: Should the Contractor require law enforcement officers (LEO) to assist with the Contractor's traffic control, the Contractor shall coordinate directly with the Village of Minerva Park Police Department, (614) 882-1408. Contractor shall contact the police department 72 hours before needing LEO. LEO will be provided to the Contractor at no cost unless noted otherwise.
- B. Right of Entry. When private property must be crossed for bypass pumping the Contractor shall obtain written Right of Entry (ROE) signed by the property owner. The ROE shall describe the extent of work, items to be restored, warranty and schedule. A signed copy of the ROE shall be submitted to the Village Engineer prior to commencing work. The cost for obtaining the ROE and all associated restoration work shall be included in the unit bid prices for the work.

3.04 ERECTION (Not Used)

3.05 INSTALLATION

- A. Bypass pumping and flow control shall be in-place and operational prior to sewer video recording and inspection (if applicable) and sewer rehabilitation work. The Contractor shall base bypass pumping and flow control on the flow rates included in Paragraph 3.15, Schedules. The Contractor shall prepare a contingency plan to prevent damage to the sewer, structure, or surrounding areas due to high flows. The Owner shall not be responsible for any damages due to high flows.

The Contractor shall also be aware adjacent sewers may not be available for bypass discharge due to surcharged conditions in those sewers during certain rain events.

- B. The bypass shall be made by plugging an existing upstream structure, if necessary, and pumping the drainage into a downstream manhole or adjacent system approved by the Village Engineer. When required, the Contractor shall also bypass laterals by pumping from a cleanout. If a new cleanout is required, it shall be installed per City of Columbus Standard Drawing AA-S161. All pumps and temporary bypass sewer piping shall be of adequate capacity and size to handle the peak flow and any necessary dewatering. The bypass pumping shall not prohibit access when crossing private access drives or public streets and shall either have temporary pavement or be securely plated. The bypass sewer may be laid over ground in all other instances. The bypass shall be a header for all bypass and dewatering pumping. Check valves shall be placed ahead of all pumping connections.

3.06 APPLICATION (Not Used)

3.07 CONSTRUCTION (Not Used)

3.08 REPAIR/RESTORATION

- A. Site Restoration: The Contractor shall be aware of the conditions at each site. This shall include but not be limited to trees, shrubbery, landscaping, structures, fences, mail boxes, driveways, curbs, sidewalks, pavements, etc. The Contractor shall videotape all ROE areas prior to use. All pre-construction conditions shall be fully restored as close to its original condition as practicable.
- B. Acknowledgement of Completion: When working on private property, the Contractor shall obtain Acknowledgement-of-Completion (AOC) from the property owner that work was completed in accordance with the ROE agreement. No payment for this work will be made until the copy of AOC is submitted to the Village Engineer.

3.09 RE-INSTALLATION (Not Used)

3.10 FIELD QUALITY CONTROL

- A. Record Only Permits: When a new cleanout or other additions to a private lateral are required for bypass pumping, the Village Engineer shall complete a record only permit for that lateral which shall document all changes or additions.

3.11 ADJUSTING (Not Used)

3.13 DEMONSTRATION (Not Used)

3.14 PROTECTION

- A. Precautions shall be taken to ensure that bypass pumping and flow control operations shall not cause flooding or damage to public or private properties. In the event flooding or damage occurs, the Contractor shall make provisions to correct such damage at no additional cost to the Village. The Contractor shall be responsible for any damages to public or private property, overflows from the sewer system and violations resulting in fines as a result of the dewatering/bypass operation.

3.15 SCHEDULES

- A. See next pages.

EXISTING FLOW RATES TO BE EXPECTED

- A. Existing flow monitoring data is not available for the project area.
- B. Flow rate information is based on typical flow determining calculations, specifically Manning's equation, using the sewer's diameter, the slope if known, and a typical Manning's N of 0.013.
- C. Because of the potential for high flows, the pipe's full flowing capacity has been used for determining existing flow rates despite the City of Columbus specified allowable percentages.
- D. 8" pipe: 450 gallons per minute (gpm).
10" pipe: 850 gallons per minute (gpm).
12" pipe: 1,500 gallons per minute (gpm).
15" pipe: 2,325 gallons per minute (gpm).
18" pipe: 6,500 gallons per minute (gpm).

END OF SECTION

SEWER SPECIFICATION 4

OPEN CUT POINT REPAIRS

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall make an open cut point repair excavation to uncover and remove or repair an obstruction and/or to uncover and replace pipe, if pipe cannot be repaired or removed by trenchless means from within the sewer. It shall be the responsibility of the Contractor to clear the sewer of obstructions, solids, protruding services, or collapsed pipe that will prevent the proper installation of a CIPP liner or restrict the flow of the sewer.

B. Related Sections:

1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES (Not Used)

1.03 DEFINITIONS (Not Used)

1.04 SYSTEM DESCRIPTION (Not Used)

1.05 SUBMITTALS

- A. The Contractor shall submit to the Village Engineer information pertaining to open cut point repairs that will include but is not limited to:
1. Proposed materials to be used to perform repairs, including City of Columbus CMS item number, itemized per repair.
 2. Right of Entry (ROE) agreements or similar authorization from private property owners should Contractor propose using areas outside Owner's right-of-way or easements.
 3. Method of handling traffic where streets are to be excavated.
- B. The Contractor shall submit a copy of all property owner/resident notifications to the Village Engineer prior to notification distribution as specified in Paragraph 3.03.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications: The Contractor shall have a minimum of 3 years continuous successful experience in open cut sewer repairs similar to that required for this project.

1.07	DELIVERY, STORAGE AND HANDLING	(Not Used)
1.08	PROJECT/SITE CONDITIONS	
	A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.	
	B. If required to complete the Work, the Contractor shall provide temporary bypass pumping and flow control in accordance with SS-3, Bypass Pumping and Flow Control.	
1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	
	A. Contractor shall guarantee the Work as specified in Section 11030 of the General Conditions.	
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)
PART 2 PRODUCTS		
2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)
2.03	MATERIALS	
	A. All materials used in the Work shall conform to Item 901, Pipe Sewers Complete in Place, of the City of Columbus CMS including all other items referenced therein.	
2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)
PART 3 EXECUTION		
3.01	ACCEPTABLE INSTALLERS	(Not Used)

3.02 EXAMINATION

- A. The Contractor shall examine all materials delivered to the site which are to be used in the Work to ensure all materials meet the requirements stated herein. All materials which do not meet the requirements of the Contract Documents shall be removed from the site and replaced with acceptable materials at no additional cost to the Owner.
- B. Open Cut Point Repairs required by the Contract Documents: Open cut point repairs are identified in the Contract Documents, based on the Owner's analysis of sewer video recording and inspection in accordance with Sewer Specification 2, Sewer Video Recording and Inspection. Due to the method of obtaining distances using coaxial cable measurements, the distances may not be exact. All open cut point repairs shall be performed in accordance with City of Columbus Standard Drawing AA-S170, latest edition.
- C. Open Cut Point Repair required by the Contractor's Means and Methods: If open cut point repairs are required by the Contractor due to the Contractor's method of lining, the Contractor shall determine additional open cut point repair locations needed to install the product to meet this Project specification. After written approval from the Village Engineer, it is the Contractor's responsibility to perform any excavation and repairs to prepare the sewer section for liner installation. This includes any sewer defect that would impede the insertion of the liner or cause any deformation of the liner section. These point repairs will not be measured for payment and are considered incidental to the contract. All open cut point repairs shall be performed in accordance with City of Columbus Standard Drawing AA-S170, latest edition.
- D. Open Cut Point Repairs required by Damaged Caused by the Contractor: If open cut point repairs are required due to damage caused by the Contractor's means and methods, the Contractor shall repair said damages at no additional cost to the Owner. All open cut point repairs shall be performed in accordance with City of Columbus Standard Drawing AA-S170, latest edition.

3.03 PREPARATION

- A. Traffic Control: Should the Contractor require law enforcement officers (LEO) to assist with the Contractor's traffic control, the Contractor shall coordinate directly with the Village of Minerva Park Police Department, (614) 882-1408. Contractor shall contact the police department 72 hours before needing LEO. LEO will be provided to the Contractor at no cost unless noted otherwise.
- B. Right of Entry: When private property must be crossed for bypass pumping the Contractor shall obtain written Right of Entry (ROE) signed by the property owner. The ROE shall describe the extent of work, items to be restored, warranty and schedule. A signed copy of the ROE shall be submitted to the Village Engineer prior to commencing work. The cost for obtaining the ROE and all associated restoration work shall be included in the unit bid prices for the work.

- C. Utilities Notification: The Contractor shall contact the appropriate utility protection service or the utility owner if utility owners are not members of a protection service within the timeframe specified by Ohio law. The Contractor shall support, protect, and restore all existing utilities encounter or disturbed during the Work.
 - D. Resident Notification: The Contractor shall notify, in writing, all adjacent landowners at least one week in advance of performing Work near their property.
 - E. Dewatering: The Contractor shall provide for dewatering as necessary to perform the Work on firm, dry materials.
- 3.04 ERECTION (Not Used)
- 3.05 INSTALLATION
- A. All Work shall conform to Item 901, Pipe Sewers Complete in Place, of the City of Columbus CMS including all other items referenced therein. Further, Work shall conform to City of Columbus Standard Drawing AA-S170, latest edition.
- 3.06 APPLICATION (Not Used)
- 3.07 CONSTRUCTION (Not Used)
- 3.08 REPAIR/RESTORATION
- A. Site Restoration, General: The Contractor shall be aware of the conditions at each open cut point repair location. This shall include but not be limited to trees, shrubbery, landscaping, structures, fences, mail boxes, driveways, curbs, sidewalks, pavements, etc. The Contractor shall videotape all ROE areas prior to use. All pre-construction conditions shall be fully restored as close to its original condition as practicable.
 - B. Site Restoration, Grass Areas: Open cut point repair sites that are located in grass areas shall be backfilled with native soil and then seeded and mulched Item 659.09 of the City of Columbus CMS including all other items referenced therein. The cost for seeding and mulching shall be included in the unit bid price for the open cut point repair.
 - C. Site Restoration, Paved Areas: Open cut point repair sites that are located in pavement areas shall be restored in accordance with City of Columbus Standard Drawing 1441, latest edition. The cost for pavement restoration shall be included in the unit price bid for the open cut point repair.
 - D. Acknowledgment of Completion: When working on private property, the Contractor shall obtain Acknowledgement-of-Completion (AOC) from the property owner that work was completed in accordance with the Right of Entry (ROE) agreement. No payment for this work will be made until the copy of AOC is submitted to the Village Engineer.
- 3.09 RE-INSTALLATION (Not Used)
- 3.10 FIELD QUALITY CONTROL (Not Used)
- 3.11 ADJUSTING (Not Used)

3.12 CLEANING (Not Used)
3.13 DEMONSTRATION (Not Used)

3.14 PROTECTION

- A. Any open cut point repairs required due to damages caused by the Contractor's cleaning methods or operations shall be repaired at the Contractor's expenses in accordance with this Sewer Specification.

3.15 SCHEDULES (Not Used)

END OF SECTION

SEWER SPECIFICATION 5

MANHOLE REHABILITATION

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, operation, and equipment necessary to rehabilitate manholes in accordance with the Contract Documents or as designated by the Village Engineer. The Work shall include all structural restoration; elimination of inflow and/or infiltration; manhole step replacement; base and channel repair; excavation; removal and disposal of all excess materials; restoration; backfill; permanent and temporary pavement replacement; clearing and grubbing; resetting, replacing, and/or raising casting to grade; and dewatering required for manhole rehabilitation.
- B. Specific work to be performed at each manhole is identified in the Contract Documents. All existing frames and covers shall become property of the Contractor.
- C. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES

- A. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:
 - 1. ASTM C109/C109M, Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).
 - 2. ASTM C293, Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Center-Point Loading).
 - 3. ASTM C321, Standard Test Method for Bond Strength of Chemical- Resistant Mortars.
 - 4. ASTM D412, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension.
 - 5. ASTM C478, Standard Specification for Precast Reinforced Concrete Manhole Sections.
 - 6. ASTM C494/C494M, Standard Specification for Chemical Admixtures for Concrete.
 - 7. ASTM C496/C496M, Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens.
 - 8. ASTM C596, Standard Test Method for Drying Shrinkage of Mortar Containing Hydraulic Cement.
 - 9. ASTM D624, Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
 - 10. ASTM D638, Standard Test Methods for Tensile Properties of Plastic.
 - 11. ASTM D695, Standard Test Method for Compressive Properties of Rigid Plastic.

12. ASTM C780, Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
13. ASTM D790, Standard Test Method for Flexural Properties of Unreinforced/Reinforced Plastics.
14. ASTM C882/C882M, Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete by Slant Shear.
15. ASTM C1244/C1244M, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.
16. ASTM D2240, Standard Test Method for Rubber and Durometer Hardness.
17. ASTM F2414, Standard Practice for Sealing Sewer Manholes Using Chemical Grouting.
18. ASTM F2551-09, Standard Practice for Installing a Protective Cementitious Liner System in Sanitary Sewer Manholes.
19. ASTM D2240, Standard Test Method for Rubber Property – Durometer Hardness.
20. ASTM 4541, Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
21. City of Columbus Standard Drawing AA-S171.
22. City of Columbus Standard Drawing AA-S172.
23. City of Columbus Standard Drawing AA-S173.

B. Manufacturer's Recommendations: Comply with the provisions and recommendations of the manufacturers.

1.03 DEFINITIONS (Not Used)
 1.04 SYSTEM DESCRIPTION (Not Used)

1.05 SUBMITTALS

- A. The Contractor shall submit to the Village Engineer information pertaining to each manhole rehabilitation that will include but not be limited to:
1. Proposed materials to be used to perform rehabilitations, including City of Columbus CMS item number, itemized per rehabilitation.
 2. Manufacturer's product data, installation instructions, applicable referenced work standards, approved laboratory tests, and materials certification for each product to be used in the Work.
 3. Material Safety Data Sheets (MSDS), if applicable, for all materials to be used in the rehabilitation.
 4. Polymer manhole liner thickness calculations.
 5. Contractor's qualifications listing all similar projects completed in the last 3 years and manufacturer's licensee certificate, if applicable.
 6. Written description of materials application methods including the equipment to be used.
 7. Right of Entry (ROE) agreements or similar authorization from private property owners should Contractor propose using areas outside Owner's right-of-way or easements.
 8. Method of handling traffic where streets are to be excavated.

- B. The Contractor shall submit a copy of all property owner/resident notifications to the Village Engineer prior to notification distribution as specified in Paragraph 3.03.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications:
 - 1. The Contractor shall have a minimum of 3 years continuous successful experience in manhole rehabilitations similar to that required for this Project.
 - 2. The Contractor shall be certified or trained by the lining material manufacturer to install the liner material if the manufacturer requires certified applicators. The Owner reserves the right to require an on-site manufacturer's representative for a minimum of 2 hours for each supplied material. The manufacturer's representative shall direct and instruct the Contractor on the proper application and installation procedure. The manufacturer's representative shall be provided at no additional cost to the Owner.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Cementitious materials shall be stored in weather-tight original packaging to protect against moisture and contamination.
- B. Polymer manhole lining materials shall be stored in unmixed containers in a sheltered area with temperatures between 50 °F and 95 °F.

1.08 PROJECT/SITE CONDITIONS

- A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.
- B. If required to complete the Work, the Contractor shall provide temporary bypass pumping and flow control in accordance with SS-3, Bypass Pumping and Flow Control.

1.09 SEQUENCING (Not Used)

1.10 SCHEDULING (Not Used)

1.11 WARRANTY

- A. Provide manufacturer's standard written warranty and guarantee, dated from time of Substantial Completion, for all materials provided as part of the Work.
- B. The Contractor shall guarantee all labor as specified in Section 11030 of the General Conditions.

1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER’S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Cementitious Manhole Liner w/ Corrosion Resistance:
 - 1. Strong Seal Systems, Inc. – Strong Seal MS-2C.
 - 2. BASF – EMACO S88-CI.
- B. Structural Cementitious Manhole Liner:
 - 1. AP/M Permaform – Permacast MS-10,000.
 - 2. Strong Seal Systems, Inc. – Strong Seal MS-2A.
- C. Polymer Manhole Liner:
 - 1. SprayRoq Protective Lining Systems – SprayWall.
- D. Flexible Chimney Seal:
 - 1. Cretex Specialty Products – Internal Chimney Seal.
 - 2. NPC – FlexRib Frame Chimney Seals.
- E. Manhole Casting Riser Ring:
 - 1. American Highway Products – Stainless Steel Manhole Riser.

2.02 EXISTING PRODUCTS (Not Used)

2.03 MATERIALS

- A. Grout: Portland cement shall conform to City of Columbus CMS 701.01. Sand shall conform to City of Columbus CMS 703.03.
- B. Manhole Steps: Manhole steps shall be reinforced polypropylene and shall conform to City of Columbus CMS 711.31.
- C. Brick: Brick used in sanitary structures shall be clay or shale brick and conform to City of Columbus CMS 704.01.
- D. Cast in Place Concrete: Cast in place concrete shall be class “C” with a 28-day compressive strength of 4000 psi and conform to City of Columbus CMS 499.
- E. Reinforcing Steel: Reinforcing steel shall be Grade 60 and shall conform to City of Columbus CMS 509.

F. Mortar: Cement shall conform to City of Columbus CMS 701.01 through 701.07. Lime shall conform to City of Columbus CMS 712.04. Sand shall conform to City of Columbus CMS 703.03.

G. Water: Water shall be potable.

2.04 MANUFACTURED UNITS

A. Manhole Frames and Covers: Standard manhole frames and covers shall meet the requirements of City of Columbus Standard Drawing AA-S111, latest edition. 36" diameter manhole frames and covers shall meet the requirements of City of Columbus Standard Drawing AA-S114, latest edition, and shall be provided with a self-sealing gasket and concealed lift holes. Vent holes in sanitary sewer covers are not permitted.

B. Manhole Grade Rings: Manhole grade rings shall conform to ASTM C478, latest edition, and shall meet the requirements of City of Columbus Standard Drawing AA-S107, latest edition.

C. Precast Concrete Manhole Sections: Precast concrete manhole sections shall conform to ASTM C478.

2.05 EQUIPMENT

A. Equipment shall be as recommended by the product manufacturer to ensure proper mixing and pumping and shall be clean and in good working order according to the manufacturer's recommendations for safe operation.

2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)

2.11 SOURCE QUALITY CONTROL

A. All prepackaged manhole lining materials shall have the date of manufacture clearly marked on the package and shall be delivered to the site unmixed. All manufacture dates shall be within the manufacturer's recommended limits for installation.

B. All manhole frames and covers shall be dated within 1 year of the installation date.

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS (Not Used)

3.02 EXAMINATION

- A. The Contractor shall examine all materials delivered to the site which are to be used in the Work to ensure all materials meet the requirements stated herein. All materials which do not meet the requirements of the Contract Documents shall be removed from the site and replaced with acceptable materials at no additional cost to the Owner.

3.03 PREPARATION

- A. Traffic Control: Should the Contractor require law enforcement officers (LEO) to assist with the Contractor's traffic control, the Contractor shall coordinate directly with the Village of Minerva Park Police Department, (614) 882-1408. Contractor shall contact the police department 72 hours before needing LEO. LEO will be provided to the Contractor at no cost unless noted otherwise.
- B. Right of Entry: When private property must be crossed for bypass pumping the Contractor shall obtain written Right of Entry (ROE) signed by the property owner. The ROE shall describe the extent of work, items to be restored, warranty and schedule. A signed copy of the ROE shall be submitted to the Village Engineer prior to commencing work. The cost for obtaining the ROE and all associated restoration work shall be included in the unit bid prices for the work.
- C. Utilities Notification: The Contractor shall contact the appropriate utility protection service or the utility owner if utility owners are not members of a protection service within the timeframe specified by Ohio law. The Contractor shall support, protect, and restore all existing utilities encounter or disturbed during the Work.
- D. Resident Notification: The Contractor shall notify, in writing, all adjacent landowners at least one week in advance of performing Work near their property.
- E. Dewatering: The Contractor shall provide for dewatering as necessary to perform the Work on firm, dry materials.
- F. Debris Dam: The Contractor shall provide a debris dam in the manhole that may be displaced into the manhole while performing the Work. No Work shall be performed until the debris dam is installed.
- G. Manhole Steps: The Contractor shall remove all manhole steps from manholes to receive lining material. All damaged to the interior of the manhole caused by the Contractor while removing manhole steps shall be repaired as required to allow for proper manhole lining in accordance with the lining manufacturer's preparation recommendations. Manhole steps shall be replaced after manhole lining is complete. Replacing manhole steps may be non-performed at the direction of the Village Engineer if the lined manhole is too constricted.
- H. Cleaning: Prior to any repair work inside the manhole, the Contractor shall clean all interior wall and invert surfaces and all wall and invert surfaces shall be free of any loose material utilizing the following methods.

1. Power Washing: Equipment shall be capable of producing a minimum of 5,000 pounds per square inch (psi) water blast to remove all foreign matter, loose mortar, grease, oil residues, rust, scale and to etch the surfaces.
 - a. All surfaces must be dry before the application of the polymer lining material.
2. Chipping: If large deposits exist or power washing cannot remove all deposits, the Contractor shall remove the deposits by chipping. The Contractor shall also remove all loose, broken or softened concrete/bricks to sound material. Any voids left by chipping procedures in manhole walls or invert surfaces shall be repaired in accordance with Paragraph 3.06.
3. Muriatic Acid: If the power washing and/or chipping cannot be utilized due to structural conditions in the manhole or they do not remove all deposits, a solution of muriatic acid (hydrochloric acid) shall be applied at a ratio of one part acid to ten parts water by spraying from above the manhole. The use of acid for cleaning purposes, no matter how diluted, is not permitted for polymer lining. After the acid solution is applied, it shall be washed off completely. The mixing, application, and removal of the acid solution shall be done in strict accordance with the manufacturer's specifications and safety procedures.
4. Steel Surfaces: Solvent cleaning will be necessary for steel surfaces to be coated with the polymer lining material. When applicable the steel surfaces may also be cleaned utilizing high (> 5,000 psi) or ultra high (> 10,000 psi) water pressure cleaning or water with sand injection and approved rust inhibitors. The surface profile must be a minimum of 2 mils.
5. Fiberglass Surfaces: Only the polymer lining material is intended for use on fiberglass surfaces. Prepare fiberglass by rinsing, neutralizing, scarifying and cleaning with water or a mixture of water and solvent. Be sure all dust and loose particles are removed. The surface should be thoroughly dry before the application of the polymer material.

- I. Waste Removal: The Contractor shall remove from the site and properly dispose of all waste materials resulting from the cleaning operations.

3.04	ERECTION	(Not Used)
3.05	INSTALLATION	(Not Used)

3.06 APPLICATION

A. Manhole Lining

1. Inspection: The Contractor shall visually examine, sound, and/or probe the manhole to identify any infiltration points and any internal or external void areas prior to applying any manhole lining material.
2. Light Infiltration: The Contractor shall stop light infiltration using a water plug material recommended and approved by the manhole liner manufacturer.
3. Heavy Infiltration: The Contractor shall stop heavy infiltration using the following procedure.
 - a. Drill up to 4 5/8-inch diameter holes around the base of the manhole to act as relief ports.

- b. Once leaking through the relief ports has stopped, plug the relief ports using water plug material recommended and approved by the manhole liner manufacturer.
 - c. If drilling relief holes does not stop the heavy infiltration, the Contractor shall inject chemical grout as specified in Sewer Specification 7, Chemical Grout.
- 4. Patching: The Contractor shall patch internal voids (i.e., bricks missing in manhole walls, step removal damage, frames, pipes, and mortar joints) with a patching mortar recommended and approved by the manhole liner manufacturer. The Contractor shall expose a sound substrate by removing all loose or defective material. The patching mortar shall be applied to a saturated, surface dry (SSD) surface. All repairs shall be made smooth and flush with the face of the manhole wall. The Contractor shall repair external void areas as specified in Sewer Specification 6, Cementitious Grouting.
- 5. Cementitious Manhole Lining: The Contractor shall apply cementitious manhole lining in manholes showing evidence of a sulfide condition. The Contractor shall apply the cementitious manhole lining as follows.
 - a. The manhole wall surface shall be in an SSD condition immediately prior to application of the cementitious manhole lining or otherwise in accordance with the cementitious manhole lining manufacturer's recommendations.
 - b. The cementitious manhole lining shall be applied using low pressure spray equipment. Hand troweling may be used with the Village Engineer's prior approval, provided the Contractor submits the cementitious manhole lining manufacturer's special requirements for review.
 - c. When applying cementitious manhole lining using spray equipment, the Contractor shall prevent overspray from entering the sewers.
 - d. The cementitious manhole lining thickness shall be a minimum of 0.375" to a maximum of 2" per pass.
 - e. The minimum finished cementitious manhole lining thickness shall be 1" when measured from the inside face of the manhole wall.
 - f. The Contractor shall apply the cementitious manhole lining in no more than 2 passes, working from bottom to top. No more than 24 hours shall pass between successive passes on each manhole. The first pass shall achieve initial set prior to applying second pass. If more than 24 hours pass before starting second pass, the Contractor shall remove the initial coat and restart the process.
 - g. The Contractor shall cure the cementitious manhole lining per the manufacturer's application instructions following the application of the final layer of cementitious manhole lining.
- 6. Polymer Manhole Lining: The Contractor shall apply the polymer manhole lining as follows.
 - a. The polymer manhole lining shall not be applied unless the ambient temperature inside the structure is 50 °F or higher and all surfaces that are to be coated are dry.

- b. The polymer manhole lining shall be applied using spray equipment by personnel experienced in spray applying resin and who has been trained and certified by the polymer manhole lining manufacturer.
- c. The polymer manhole lining thickness shall be a minimum of 250 mils (to support structural integrity) to a maximum of 500 mils per application. No more than 1,000 mils shall be applied in any one day of application. The minimum finished polymer manhole lining thickness shall be as approved in the Contractor's approved thickness calculations. Areas below the water table may require lining thicknesses greater than 250 mils for structural integrity.
- d. No more than 15 minutes shall pass between successive applications if multiple coats are required.
- e. Should certain portions of the manhole wall require thicker coatings per the approved thickness calculations – for example, areas below the water table – than other portions of the manhole wall, those areas shall be coated first so the final coat is a monolithic lining from top to bottom for structural enhancement.
- f. No other products, such as cement or grout, may be used as part of the structural reinstatement except as used in pre-lining infiltration stopping or patching procedures.
- g. The Contractor shall apply the polymer manhole lining in one mobilization, unless the approved thickness calculations require a thickness greater than 1,000 mils.
- h. The Contractor shall return the finished manhole to full service immediately after the polymer manhole lining's initial curing period is complete.

3.07 CONSTRUCTION

(Not Used)

3.08 REPAIR/RESTORATION

- A. Raise Manhole Cover to Grade: The Contractor shall measure each manhole to ensure proper riser ring height. If a frame has an existing riser ring installed, it shall be removed prior to the measurement so that the new riser ring will incorporate that height. No frame shall have more than 1 riser ring installed and no riser ring shall exceed 12" unless approved by the Village Engineer. The riser ring shall be secured to the frame with set screws and a tar sealant shall be applied between the riser ring and frame.
 - 1. Any manhole cover designated to be raised to grade shall have the frame and cover raised to grade per Paragraph 3.08.C if raising it will require a riser ring larger than 12".
 - 2. If raising the manhole cover would result in the chimney height exceeding 26", the manhole shall be reconstructed to grade per Paragraph 3.08.D. The resulting chimney section for the manhole reconstructed to grade shall not exceed 18".
- B. Replace Manhole Frame and Cover: The Contractor shall remove the soil around the casting to a depth which will prevent displacement of material into the manhole after the frame and cover and loose brick work is removed. The existing castings and covers shall

be removed. The top of the walls shall have all loose mortar, deteriorated masonry and brick removed to sound material. The resulting surface shall be cleaned with a water blast to remove any remaining scale, dust and deleterious materials. The frame shall be set in a bed of mortar and cast into a reinforced concrete collar per Paragraph 3.08.E if specified in the Contract Documents. The surface shall be restored as specified elsewhere in this Sewer Specification.

- C. **Raise Manhole Frame and Cover to Grade:** The Contractor shall remove the manhole frame and cover as specified in Paragraph 3.08.B, but after the surface has been cleaned the Contractor shall raise the existing support walls. A bonding agent shall be applied to the top of the existing wall surface and allowed to reach the recommended cure period. The supporting walls shall be raised to the specified elevation noted in the Contract Documents or as directed by the Village Engineer using brick, precast grade rings or mortar masonry construction. The manhole frame and cover shall be installed as described in Paragraph 3.08.B and the surface shall be restored as specified elsewhere in this Sewer Specification.
1. If raising the manhole cover would result in the chimney height exceeding 26", the manhole shall be reconstructed to grade per Paragraph 3.08.D. The resulting chimney section for the manhole reconstructed to grade shall not exceed 18".
- D. **Reconstruct Manhole to Grade:** The Contractor shall remove the existing frame, chimney section, corbelling and manhole walls to the elevation required to rebuild the manhole to the specified elevation or to an elevation where sound concrete/brick and mortar construction is encountered. The excavation around the periphery of the walls shall be extended below the wall demolition level to provide for encasement of the transition joint. The manhole shall be reconstructed to the elevation noted in the Contract Documents utilizing precast units as shown on City of Columbus standard Drawing AA-S102 for Type "C" manholes. The transition joint shall be encased with 6" thick Class "C" concrete extending 6" above and below the horizontal joint. The manhole frame and cover shall be installed as described in Paragraph 3.08B and the surface restored as specified elsewhere in this Sewer Specification. The brick and mortar walls shall be rehabilitated as described in Paragraph 3.08.E.
- E. **Reinforced Concrete Collar:** When specified the Contractor shall encase the casting, vertical chimney section, and the top 6" of the corbelling with Class "C" concrete to a minimum thickness of 5" over the casting flange and 6" around the perimeter of the brick and mortar masonry chimney per the City of Columbus standard drawings. The collar shall be reinforced with two circumferential #4 bars spaced equally along the vertical axis, bar ends lapped 10" and embedded with a minimum concrete cover of 2" and a maximum of 3".
- F. **Rehabilitate Bench and Channel:** The Contractor shall reconstruct the entire bench and channel area using the rapid strength patching mortar required by the manhole liner manufacturer. The preparation work shall include all demolition of deteriorated concrete and removal of all deleterious material from the surfaces to be reconstructed and the removal of sound concrete such that the repair mortar shall not be less than 1-inch in thickness at any point as shown in the attached manhole rehabilitation drawings.

1. If active infiltration is present in the bench and channel area of the manhole, dewatering exterior to the manhole with a well point may be required in order to facilitate the reconstruction. The dewatering shall continue for a minimum of 8 hours following completion of the bench and channel repair work. Dewatering well point, if anticipated, will be listed as a pay item in the bid schedule.
 2. Wastewater flow shall be maintained by methods which prevent contact with any of the repair work for a minimum of 8 hours following completion of the repair work.
 3. The work on the bench and channel shall also include the work necessary to obtain a watertight seal at all pipe connections, drop inlet connections and between the base and manhole walls. The flow line through the manhole shall be shaped to match the invert of the sewer liner to prevent any flow obstructions in the manhole.
- G. Replace Steps: The Contractor shall replace the manhole steps in accordance with the City of Columbus standard drawings and in accordance with City of Columbus CMS 711.31. The steps shall be selectively placed to position the steps a minimum of 2" above or below their previous location. The recommended starting location for step placement is 24" +/- 2" below the top of the casting. Holes must be drilled to minimize damage to manhole linings or seal coats. Steps shall be set at the proper embedment depth per the manufacturer along with an approved water stopping sealant. The rehabilitated wall shall be inspected following placement of the new steps for indications of damage to the lining or seal coat. Repairs shall be as directed by the Village Engineer. Replacing manhole steps may be non-performed at the direction of the Village Engineer if the lined manhole is too constricted.
- H. Flexible Chimney Seals: The Contractor shall field measure each manhole to ensure proper sizing of the chimney seal. The interior wall surfaces shall be circular and reasonably smooth to promote a positive seal. If the surface is rough, sloped, or irregular apply non-shrink patching mortar to prepare a uniform vertical surface for the sleeve to seal against. Any flaws in the manhole frame such as cracks, pits, or protrusions shall be repaired by either filling with mortar or grinding smooth. Installation of the chimney seal and expansion bands shall be in accordance with the manufacturer's recommendations.
- I. Site Restoration, General: The Contractor shall be aware of the conditions at each open cut point repair location. This shall include but not be limited to trees, shrubbery, landscaping, structures, fences, mail boxes, driveways, curbs, sidewalks, pavements, etc. The Contractor shall videotape all ROE areas prior to use. All pre-construction conditions shall be fully restored as close to its original condition as practicable.
- J. Site Restoration, Grass Areas: Open cut point repair sites that are located in grass areas shall be backfilled with native soil and then seeded and mulched Item 659.09 of the City of Columbus CMS including all other items referenced therein. The cost for seeding and mulching shall be included in the unit bid price for the open cut point repair.
- K. Site Restoration, Paved Areas: Open cut point repair sites that are located in pavement areas shall be restored in accordance with City of Columbus Standard Drawing 1441,

latest edition. The cost for pavement restoration shall be included in the unit price bid for the open cut point repair.

- L. Acknowledgment of Completion: When working on private property, the Contractor shall obtain Acknowledgement-of-Completion (AOC) from the property owner that work was completed in accordance with the Right of Entry (ROE) agreement. No payment for this work will be made until the copy of AOC is submitted to the Village Engineer.

3.09 RE-INSTALLATION

(Not Used)

3.10 FIELD QUALITY CONTROL

A. Visual Inspection

1. Pre-Construction: The Contractor shall visually inspect all manhole walls and invert surfaces for infiltration, voids, all foreign matter, loose mortar, grease, oil residues, and deposits prior to beginning the Work. The Contractor shall remove all loose materials or deposits before beginning the Work. The Contractor shall notify the Village Engineer of any visible leaks.
2. Post-Construction: The Village Engineer will visually inspect the manhole lining for water tightness upon lining completion and the Owner may visually inspect the lining material for water tightness at any time during the liner warranty period. The Contractor shall repair any visible leaks in accordance with the Contract Documents and the warranty information.

B. Testing Requirements

1. The Contractor shall test the manhole liner with a wet gauge as directed by the Village Engineer to verify approved and required thickness. The Contractor shall provide the additional material needed to any area found with less than the approved and required thickness.
2. Cementitious Liner: The Contractor shall cast 3 2" x 2" cubes for strength verification from each day's liner mix. After fabrication, the top of the cube mold is to be covered to protect the cubes from direct contact with moisture and the cubes are to be stored inside the structure where fabricated for 24 hours. After 24 hours the samples are to be removed from the structure and submitted to the submitted and approved laboratory for testing. The cube samples shall be tested per ASTM C109 and shall meet the following compressive strength requirements:
 - a. 2,000 psi at 24 hours
 - b. 8,000 psi at 28 days
3. Polymer Liner: The Contractor shall spray 2 7" x 7" stainless steel plates to a thickness of 1/2". The plates shall be prepared by applying wax or another approved release agent to them so the panels can be easily pulled away without damage. The samples are to be submitted to the submitted and approved laboratory for testing. The plate samples will be tested per ASTM D790 and ASTM D695 and shall meet the following flexural and compressive requirements:
 - a. Flexural modulus of elasticity $\geq 730,000$ psi at 24 hours
 - b. Compressive strength $\geq 15,000$ psi at 24 hours

4. The Contractor shall sound each manhole at 7 days in the presence of the Village Engineer. The Contractor shall correct all defects per the manufacturer's recommendations to meet the requirements of the Contract Documents.
5. The Contractor shall vacuum test each manhole that is lined with the polymer material in accordance with ASTM C1244.

3.11 ADJUSTING (Not Used)

3.12 CLEANING

- A. The Contractor shall be responsible for containing and removing all material, rebound, and loose material caused by performing the Work.

3.13 DEMONSTRATION (Not Used)

3.14 PROTECTION (Not Used)

3.15 SCHEDULES (Not Used)

END OF SECTION

SEWER SPECIFICATION 6
CEMENTITIOUS GROUTING

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, and equipment necessary to fill voids outside the sewer or manholes as specified in the Contract Documents or as directed by the Village Engineer.
- B. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES

- A. Manufacturer's Recommendations: Comply with the provisions and recommendations of the manufacturers.

1.03 DEFINITIONS

(Not Used)

1.04 SYSTEM DESCRIPTION

(Not Used)

1.05 SUBMITTALS

- A. The Contractor shall submit to the Village Engineer information pertaining to cementitious grouting that will include but not be limited to:
 - 1. Manufacturer's product data, installation instructions, applicable referenced work standards, approved laboratory tests, and materials certification for each product to be used in the Work.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications:
 - 1. The Contractor shall have a minimum of 3 years continuous successful experience in pressure grouting similar to that required for this Project.
 - 2. The Contractor shall be certified or trained by the cementitious grout manufacturer to install the cementitious grout if the manufacturer requires certified applicators. The Owner reserves the right to require an on-site manufacturer's representative for a minimum of 2 hours for each supplied material. The manufacturer's representative shall direct and instruct the

Contractor on the proper application and installation procedure. The manufacturer's representative shall be provided at no additional cost to the Owner.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Materials shall be delivered in undamaged, unopened containers bearing manufacturer's original labels. Grout shall be transported, stored, and placed in the manner prescribed by the manufacturer of those materials as detailed in published data provided by the manufacturer.

1.08 PROJECT/SITE CONDITIONS

- A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.
- B. If required to complete the Work, the Contractor shall provide temporary bypass pumping and flow control in accordance with SS-3, Bypass Pumping and Flow Control.

1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)

2.03 MATERIALS

- A. Portland Cement: Conform to City of Columbus CMS 701.01.
- B. Chemical grout material properties: Conform to City of Columbus CMS 703.03.
- C. Water: Water shall be potable.

2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)

2.11 SOURCE QUALITY CONTROL (Not Used)

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS (Not Used)

3.02 EXAMINATION

- A. The Contractor shall examine all materials delivered to the site which are to be used in the Work to ensure all materials meet the requirements stated herein. All materials which do not meet the requirements of the Contract Documents shall be removed from the site and replaced with acceptable materials at no additional cost to the Owner.

3.03 PREPARATION

- A. The Contractor shall clean and prepare mortar joints in existing brick sewers or structures as needed prior to cementitious grouting to prevent grout from seeping back into the sewer or structure.

3.04 ERECTION (Not Used)

3.05 INSTALLATION (Not Used)

3.06 APPLICATION

- A. General: The Contractor shall perform low-pressure grouting at voids between the outside wall of a sewer or structure and the surrounding soil in the area to be rehabilitated. Locations to be grouted include areas where voids are visible from inside the sewer or structure, where there is visible evidence of leakage through joints, where there is visible evidence of calcium build-up on the inside surfaces of the sewer or structure, additional locations as specified in the Contract Documents, and additional locations as directed by the Village Engineer.
- B. Equipment: The Contractor shall supply all equipment and appurtenances necessary for cementitious grouting. The grouting pumps shall be equipped with pressure gauges. When necessary to complete the work, pressure-regulated bypass valves shall be incorporated into the pumping system.
- C. Batching and Mixing:
1. Water-Cement Ratio: 1 bag of Portland cement per 1 cubic foot (7.5 gallons) of water.
 2. Maximum Water-Cement Ratio: 0.8.
 3. Grout Yield: 1.48 cubic feet per bag of cement, unless specified otherwise.
 4. Water-Cement Ratio Adjustment: The Contractor is permitted to adjust the water-cement ratio during grouting to provide adequate penetration behind sewer and structure walls. Changes in mix design must be approved by the Village Engineer.

- D. The Contractor shall drill holes and install grout injection devices at locations within the sewer or structure to fill void areas. The Contractor shall monitor the pumping operation to prevent excessive pressures. Upon completion of grouting, the injection devices shall be removed and the holes shall be filled with a fast-set, non-shrinking mortar.
- E. The Contractor shall perform the grouting in stages. No more than 10 bags of cement per void shall be placed during a stage. A minimum of 12 hours shall pass before starting the subsequent stage. Voids shall be resounded and probed after each stage and only those areas still indicating void spaces shall be re-grouted.
- 3.07 CONSTRUCTION (Not Used)
- 3.08 REPAIR/RESTORATION
- A. The Contractor shall fill all drilled holes flush to the surface with cementitious grout and shall provide a smooth trowel finish even with the pipe or structure wall.
- 3.09 RE-INSTALLATION (Not Used)
- 3.10 FIELD QUALITY CONTROL (Not Used)
- 3.11 ADJUSTING (Not Used)
- 3.12 CLEANING
- A. The Contractor shall be responsible for containing and removing all material, rebound, and loose material caused by performing the Work. Flushing excess grout from the Contractor's equipment into the sewers or adjacent structures is prohibited.
- 3.13 DEMONSTRATION (Not Used)
- 3.14 PROTECTION
- A. The Contractor shall prevent grout from entering sewers, laterals, conduit, duct banks, and adjacent structures. The Contractor shall monitor working pressures to avoid damaging or displacing sewers, adjacent structures, or the surrounding ground surface. The Contractor shall replace, repair, or clean utilities and structures affected by the Contractor's grouting procedures at no additional cost to the Owner.
- 3.15 SCHEDULES (Not Used)

END OF SECTION

SEWER SPECIFICATION 7

CHEMICAL GROUT

PART 1 GENERAL

1.01 SUMMARY

- A. When groundwater movement through the structural wall continues to prevent the application of cementitious lining after void detection and cementitious grouting has been completed, chemical grout shall be used as an infiltration sealing material. Chemical grouting shall be performed only when approved by the Village Engineer, and shall only be performed after cementitious grouting.
- B. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES

- A. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:
 - 1. ASTM F2304, Standard Practice for Sealing of Sewers Using Chemical Grouting.
 - 2. ASTM F2414, Standard Practice for Sealing Sewer Manholes Using Chemical Grouting.
- B. Manufacturer's Recommendations: Comply with the provisions and recommendations of the manufacturers.

1.03 DEFINITIONS

(Not Used)

1.04 SYSTEM DESCRIPTION

(Not Used)

1.05 SUBMITTALS

- A. The Contractor shall submit to the Village Engineer information pertaining to chemical grouting that will include but not be limited to:
 - 1. Manufacturer's product data, installation instructions, applicable referenced work standards, approved laboratory tests, and materials certification for each product to be used in the Work.
 - 2. Pump calibration information, field sealing records, certification of pressure sensing and monitoring equipment, and a list of proposed chemicals to be used.
 - 3. Material Safety Data Sheets (MSDS), if applicable, for all materials to be used in the rehabilitation.
 - 4. Certifications or similar demonstrating chemicals to be used are approved by the United States Environmental Protection Agency for use in the work to be performed.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications:
 - 1. The Contractor shall have a minimum of 3 years continuous successful experience in pressure grouting similar to that required for this Project.
 - 2. The Contractor shall be certified or trained by the chemical grout manufacturer to install the chemical grout if the manufacturer requires certified applicators. The Owner reserves the right to require an on-site manufacturer's representative for a minimum of 2 hours for each supplied material. The manufacturer's representative shall direct and instruct the Contractor on the proper application and installation procedure. The manufacturer's representative shall be provided at no additional cost to the Owner.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Materials shall be delivered in undamaged, unopened containers bearing manufacturer's original labels. Materials used as chemical grout shall be transported, stored, and placed in the manner prescribed by the manufacturer of those materials as detailed in published data provided by the manufacturer.
- B. All materials shall be kept dry, indoors, and at a minimum temperature of 40 °F.

1.08 PROJECT/SITE CONDITIONS

- A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.
- B. If required to complete the Work, the Contractor shall provide temporary bypass pumping and flow control in accordance with SS-3, Bypass Pumping and Flow Control.

1.09	SEQUENCING	(Not Used)
1.10	SCHEDULING	(Not Used)
1.11	WARRANTY	(Not Used)
1.12	SYSTEM STARTUP	(Not Used)
1.13	INSTRUCTION OF OWNER'S PERSONNEL	(Not Used)
1.14	COMMISSIONING	(Not Used)
1.15	MAINTENANCE	(Not Used)

PART 2 PRODUCTS

2.01	MANUFACTURERS	(Not Used)
2.02	EXISTING PRODUCTS	(Not Used)

2.03 MATERIALS

- A. General: Chemical grout shall be a hydrophobic, urethane base, gel chemical sealing material which shall be able to react in the presence of water and shall be able to withstand continuous submergence without degradation. The sealant formation resulting from chemical grouting shall prevent the passage of water through the structure wall, shall withstand freeze-thaw and wet-dry cycles without degradation, shall not be biodegradable, and shall be chemically stable and resistant to the mild concentrations of acids, alkalis, and organic materials commonly found in wastewater.
- B. Chemical grout material properties:
1. Urethane prepolymer (liquid) minimum solids content: 77%.
 2. Prepolymer viscosity: 450-850 centipoise at 77 °F.
 3. Cure time:
 - a. 3 minutes, 50 seconds at 50 °F.
 - b. 3 minutes, 00 seconds at 68 °F.
 - c. 2 minutes, 30 seconds at 86 °F.
 4. Cure time with accelerator: 60 seconds at 40-80 °F.
 5. Recommended mix ratio: 1 part prepolymer to 8 part water (11% prepolymer).
 6. Absorption: 10%, maximum.
 7. Shrinkage: 4%, maximum.

2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	(Not Used)

PART 3 EXECUTION

3.01	ACCEPTABLE INSTALLERS	(Not Used)
3.02	EXAMINATION	

- A. The Contractor shall examine all materials delivered to the site which are to be used in the Work to ensure all materials meet the requirements stated herein. All materials which do not meet the requirements of the Contract Documents shall be removed from the site and replaced with acceptable materials at no additional cost to the Owner.

3.03	PREPARATION	(Not Used)
3.04	ERECTION	(Not Used)
3.05	INSTALLATION	(Not Used)

3.06 APPLICATION

- A. The Contractor shall supply all equipment and appurtenances necessary for pressurized chemical grouting. The chemical injection pumps shall be equipped with pressure gauges. When necessary to complete the work, pressure-regulated bypass valves shall be incorporated into the pumping system.
- B. The Contractor shall drill holes and install chemical injection devices at each leakage location within the structure. Chemical grouting materials shall be pumped through the holes into the surrounding medium until the pressure gauges show refusal, a predetermined amount of chemical grout has been applied, or chemical grout is observed at an adjoining injection point. The Contractor shall monitor the pumping operation to prevent excessive pressures. Upon completion of pressurized grouting, the injection devices shall be removed and the holes shall be filled with a fast-set, non-shrinking mortar.
- C. The Contractor shall perform the pressurized chemical grouting in 2 stages. The chemical grout placed in the first stage shall not exceed 10 gallons of liquid prepolymer per void detected. The chemical grout placed in the second stage shall not exceed 10 gallons of prepolymer per void detected. A minimum of 12 hours shall pass before starting the second stage. No additional stages of pressurized chemical grout shall be permitted unless approved by the Village Engineer.
- D. The Contractor shall clean crack surfaces of cracks contaminated at the outside. The Contractor shall seal the surface of all cracks which are wide or exhibiting high water flows with a sealing material recommended by the chemical grout manufacturer.

3.07	CONSTRUCTION	(Not Used)
3.08	REPAIR/RESTORATION	(Not Used)
3.09	RE-INSTALLATION	(Not Used)
3.10	FIELD QUALITY CONTROL	(Not Used)
3.11	ADJUSTING	(Not Used)

3.12 CLEANING

- A. The Contractor shall be responsible for containing and removing all material, rebound, and loose material caused by performing the Work.

3.13	DEMONSTRATION	(Not Used)
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3.14 PROTECTION

- A. The Contractor shall prevent chemical grout from entering sewers, laterals, conduit, duct banks, and adjacent structures. The Contractor shall monitor working pressures to avoid damaging or displacing sewers, adjacent structures, or the surrounding ground surface. The Contractor shall replace, repair, or clean utilities and structures affected by the Contractor's grouting procedures at no additional cost to the Owner.

3.15 SCHEDULES

(Not Used)

END OF SECTION

SEWER SPECIFICATION 8

CURED-IN-PLACE PIPE LINER

PART 1 GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, operation, and equipment necessary to rehabilitate sewers in accordance with the Contract Documents or as designated by the Village Engineer. The Work shall include cleaning and lining; elimination of inflow and/or infiltration; excavation; removal and disposal of excess materials; restoration; backfill; permanent and temporary pavement replacement; bypass pumping and/or flow diversion required for placing cast-in-place pipe (CIPP) liner.
- B. Specific work to be performed at each sewer is identified in the Contract Documents.
- C. Related Sections:
 - 1. Sewer Specification 0, Sewer Specification Definitions.

1.02 REFERENCES

- A. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:
 - 1. American Association of State Highway and Transportation Officials (AASHTO).
 - 2. ASTM D543, Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents.
 - 3. ASTM D2122, Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings.
 - 4. ASTM F1216, Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
 - 5. ASTM F1743, Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resins Pipe (CIPP).
 - 6. ASTM F2019, Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled-in-Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP).
 - 7. ASTM F2599, Standard Practice for the Sectional Repair of Damaged Pipe by Means of an Inverted Cured-In-Place Liner.
 - 8. Occupational Safety and Health Administration
- B. Manufacturer's Recommendations: Comply with the provisions and recommendations of the manufacturers.

1.03 DEFINITIONS

(Not Used)

1.04 SYSTEM DESCRIPTION

A. Design Criteria:

1. Design Life: 50 years.
2. Pipe Diameter: As shown in the Contract Documents.
3. Ovality: 3%.
4. Pipe Condition: Fully deteriorated.
5. External Water: Ground surface.
6. Flexural Strength: 4,500 psi. (minimum)
7. Short-Term Flexural Modulus: 250,000 psi. (minimum)
8. Reduction Factor: 50%.
9. Long-Term Flexural Modulus: 125,000 psi. (minimum)
10. k Enhancement Factor: 7.
11. Soil Modulus: 1,000 psi.
12. Soil Density: 120 pcf.
13. Highway Live Load: AASHTO HS20-44.
14. Safety Factor: 2, minimum.
15. Minimum Thickness:
 - a. Pipe 10 Inches and Smaller: 6 millimeters.
 - b. Pipe Larger than 10 Inches: 7.5 millimeters.
 - c. If calculations require a thicker wall, round to next higher multiple of 0.5 millimeter.
16. Poisson's Ratio: 0.3.
17. Liner shall be watertight.

1.05 SUBMITTALS

- ### A. Pre-Installation Submittals: The Contractor shall submit to the Village Engineer information pertaining to each sewer repair or rehabilitation that will include, but not be limited to:
1. Proposed materials to be used to perform repairs and rehabilitations, including City of Columbus CMS item number if applicable.
 2. Manufacturer's product data, delivery, storage, and handling instructions, installation instructions, applicable referenced work standards, approved laboratory tests, and materials certification for each product to be used in the Work.
 3. Material Safety Data Sheets (MSDS), if applicable, for all materials to be used in the rehabilitation.
 4. CIPP liner thickness calculations.
 5. Contractor's qualifications listing all similar projects completed in the last 3 years and manufacturer's licensee certificate, if applicable.
 6. Written description of materials application methods including the equipment to be used. "Wet-out" plan describing method for "wet out" of flexible tube including specific insertion and curing schedule. Details on curing method.
 7. Right of Entry (ROE) agreements or similar authorization from private property owners should Contractor propose using areas outside Owner's right-of-way or easements.
 8. Method of handling traffic where streets are to be excavated.

- B. Post-Installation Submittals:
 - 1. Process control sheet for each section, including temperature and time log information, tap cut information, and curing cycle.
 - 2. Post-installation sewer videos in the format specified in SS-2, Sewer Video Recording and Inspection
 - 3. Manufacturer's certification of proper installation of CIPP liner
 - 4. Certified test reports of CIPP liner samples obtained during installation
- C. The Contractor shall submit a copy of all property owner/resident notifications and door hangers to the Village Engineer prior to notification distribution as specified in Paragraph 3.03.

1.06 QUALITY ASSURANCE

- A. Codes: Perform all work in accordance with current federal, state, and local codes.
- B. Standards: All work shall meet or exceed the requirements of the National Association of Sewer Service Companies (NASSCO) Recommended Specifications for Sewer Collection System Rehabilitation (latest edition), except as otherwise specified herein.
- C. Contractor's Qualifications:
 - 1. The Contractor shall have a minimum of 3 years continuous successful experience in sewer repairs and rehabilitations equal to larger in size to that required for this Project.
 - 2. The Contractor shall be certified or trained by the CIPP liner material manufacturer to install the CIPP liner material if the manufacturer requires certified applicators. The Owner reserves the right to require an on-site manufacturer's representative for a minimum of 2 hours for each supplied material. The manufacturer's representative shall direct and instruct the Contractor on the proper application and installation procedure. The manufacturer's representative shall be provided at no cost to the Owner.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Resin: Shipped directly to wet-out facility from resin manufacturer.
- B. Store water-cured or steam-cured resin-impregnated tubes in refrigerated truck trailers at a temperature below 45 °F to prevent premature curing.
- C. If liner tube is impregnated with resin at the factory, transport, install, and cure liner tube before expiration of shelf life.
- D. No cuts, tears, or abrasions shall occur to liner tub during handling.

- E. Prior to beginning installation, do not subject resin-impregnated liner to sunlight or ultraviolet (UV) radiation.
 - 1. UV liner may be stored up to 3 months before installation.
 - 2. Remove resin-impregnated tubes with signs of premature curing from Site.

1.08 PROJECT/SITE CONDITIONS

- A. The Contractor shall use caution when working in sewers. During rain events, sewers may reach capacity quickly.
- B. If required to complete the Work, the Contractor shall provide temporary bypass pumping and flow control in accordance with SS-3, Bypass Pumping and Flow Control.

1.09 SEQUENCING (Not Used)

1.10 SCHEDULING (Not Used)

1.11 WARRANTY

- A. Provide manufacturer's standard written warranty and guarantee, dated from time of Substantial Completion, for all materials provided as part of the Work.
- B. The Contractor shall guarantee all labor as specified in Section 11030 of the General Conditions.
- C. Warranty Inspection: The Owner or the Owner's designated representative will conduct a warranty inspection in the 11th month following Substantial Completion. The Contractor and a manufacturer's representative shall be present for the inspection. Deficiencies related to material and workmanship shall be repaired in accordance with the accepted warranties and the Contract Documents, at no cost to the Owner.

1.12 SYSTEM STARTUP (Not Used)

1.13 INSTRUCTION OF OWNER'S PERSONNEL (Not Used)

1.14 COMMISSIONING (Not Used)

1.15 MAINTENANCE (Not Used)

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers are specified in the individual material specifications below.

2.02 EXISTING PRODUCTS (Not Used)

2.03 MATERIALS

- A. Resin:
 - 1. General purpose, unsaturated, polyester, epoxy, isophthalic neopentyl glycol, or thermosetting vinyl ester resin, catalyst system, initiators, or hardeners that

- provide specified cured physical strengths and properties, and compatible with reconstruction inversion process.
2. Resistant to municipal wastewater environment; immersion in septic sewage at temperatures up to 75 °F.
 3. Curing:
 - a. Designed to cure properly within selected curing method.
 - b. Initiation Temperature: 180 °F, maximum.
 4. Resistant to ultra-violet light (sunlight) prior to installation.
 5. PET resins, resin filters, resin additives, and resin enhancement agents are prohibited. Only neat resins are acceptable. Old resins and reworked resins are prohibited, regardless of whether or not they are mixed with new resin.
 6. Chemical resistance of resin system shall have been tested by resin manufacturer in accordance with ASTM D543. Exposure to chemical solutions listed below at temperatures of up to 75 °F shall be conducted for a minimum period of 1 month and shall result in a loss of not more than 20% of initial structural properties.
 - a. Minimum Chemical Solution Concentration, ASTM F1216:
 - 1) Tap Water, pH 6 to 9: 100%.
 - 2) Nitric Acid: 5%.
 - 3) Phosphoric Acid: 10%.
 - 4) Sulfuric Acid: 10%.
 - 5) Gasoline: 100%.
 - 6) Vegetable Oil: 100%.
 - 7) Detergent or Soap: 0.1%.
 7. Produce cured tube resistant to shrinkage, not corrode or oxidize, and resistant to abrasion from solids, grit, and sand in wastewater.
 8. Bond between tube layers shall be strong and uniform.
 9. Layers, after cure, shall be saturated with resin.
 10. Manufacturers and Products:
 - a. Reichhold: PolyLite #33420 or DION 9800 20.
 - b. Interplastic Corporation: #COR72 AA 455HV, #COR72 AA 656, or #CORVE8190.
 - c. Ashland Specialty Chemical Company: #AROPOL MR12018 or HETRON Q6405.
 - d. AOC: 701 or 102NA.
 - e. Vipul: L704NET 11 or L704AAP 12.
 - f. Or-equal

B. Catalyst:

1. Primary: 1% maximum of resin by volume.
2. Secondary: ½% of resin by volume.
3. Manufacturers and Products:
 - a. Primary Catalyst:
 - 1) Akzo: Perkadox 16, Perkadox BTW 50, or Norox 600.
 - 2) Or-equal
 - b. Secondary Catalyst:
 - 1) Akzo: Trigonox C or Norox TBPB.
 - 2) Puritan Products: N, N-dimethyl aniline (DMA).
 - 3) Or-equal

C. Flexible Liner Tube:

1. Consist of layers of flexible nonwoven and absorbent polyester felt manufactured under quality controlled conditions set by manufacturer and applicable requirements set forth in ASTM F1216 and ASTM F1743.
2. Capable of stretching to fit irregular pipe sections.
3. Fabricated and sized for each section to ensure snug and firm fit inside existing sewer; produce required thickness after resin is cured.
4. Inside layer of tube shall be coated with an impermeable material compatible with resin and felt.
5. Fit length and diameter of manhole with allowance for longitudinal and circumferential stretching or shrinkage.
6. Maximum Stretching Allowance: In accordance with ASTM F1216.
7. Fabricate in lengths that, when installed, liner occupies length of pipeline between launch and reception manholes.
8. Lining shall be correct diameter; after installation there shall be no wrinkles or form permanent fins.
9. Contain no intermediate layers that may delaminate after resin curing. Not capable of separating layers with a probe or knife blade such that layers separate cleanly or probe or knife blade moves freely between layers.
10. Where several layers of felt are required, inner layer shall be stitched to form a tube.
 - a. Each successive layer shall be individually wrapped around previous one and stitched together.
 - b. Outer layer of felt shall have an installation tube prebonded to it, or a sheet of this material shall be wrapped around completed felt tube.
 - c. Where a prebonded material is used, bond a covering strip over seam to form airtight joint.
11. Fabricated from materials which when cured will be chemically resistant to reagents as defined in ASTM D543.
12. Preliner:
 - a. If required by Village Engineer, apply to tube on what will become interior wall of finished CIPP liner.
 - b. Polypropylene compatible with resin system and shall not adversely affect adhesive properties of resin used in mainline or lateral liners.
13. Interior Pipe Wall Color: Shall not be a dark or nonreflective nature that could inhibit proper closed circuit television (CCTV) inspection.
14. Manufacturers:
 - a. Applied Felts.
 - b. Insituform Technologies.
 - c. Liner Products.
 - d. National Liner.
 - e. Or-equal.

D. Annular Space Sealant. Hydrophilic Rubber Joint Seal:

1. Greenstreak, Inc.: Hydrotite
2. Or-equal.

2.04	MANUFACTURED UNITS	(Not Used)
2.05	EQUIPMENT	(Not Used)
2.06	COMPONENTS	(Not Used)
2.07	ACCESSORIES	(Not Used)
2.08	MIXES	(Not Used)
2.09	FABRICATION	(Not Used)
2.10	FINISHES	(Not Used)
2.11	SOURCE QUALITY CONTROL	

- A. At the time of manufacture, each lot of liner shall be inspected and certified to be free of defects.
- B. Mark inside of tube in at least one location per setup. Mark shall include manufacturer of liner at regular intervals, not to exceed 10 feet, along full length of tube.

PART 3 EXECUTION

3.01	ACCEPTABLE INSTALLERS	(Not Used)
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3.02 EXAMINATION

- A. The Contractor shall examine all materials delivered to the site which are to be used in the Work to ensure all materials meet the requirements stated herein. All materials which do not meet the requirements of the Contract Documents shall be removed from the site and replaced with acceptable materials at no additional cost to the Owner.

3.03 PREPARATION

- A. Traffic Control: Should the Contractor require law enforcement officers (LEO) to assist with the Contractor's traffic control, the Contractor shall coordinate directly with the Village of Minerva Park Police Department, (614) 882-1408. Contractor shall contact the police department 72 hours before needing LEO. LEO will be provided to the Contractor at no cost unless noted otherwise.
- B. Right of Entry: When private property must be crossed for bypass pumping the Contractor shall obtain written Right of Entry (ROE) signed by the property owner. The ROE shall describe the extent of work, items to be restored, warranty and schedule. A signed copy of the ROE shall be submitted to the Village Engineer prior to commencing work. The cost for obtaining the ROE and all associated restoration work shall be included in the unit bid prices for the work.
- C. Utilities Notification: The Contractor shall contact the appropriate utility protection service or the utility owner if utility owners are not members of a protection service within the timeframe specified by Ohio law. The Contractor shall support, protect, and restore all existing utilities encounter or disturbed during the Work.
- D. Resident Notification: The Contractor shall notify, in writing, all adjacent landowners at least one week in advance of performing Work near their property.

- E. Dewatering: The Contractor shall provide for dewatering as necessary to perform the Work on firm, dry materials.

3.04 ERECTION (Not Used)
3.05 INSTALLATION (Not Used)

3.06 APPLICATION

A. Temporary Flow Control and Diversion

1. Provide flow control in accordance with SS-3 Bypass Pumping and Flow Control.
2. Overflows or Spills
 - a. Schedule and perform work in a manner that does not cause or contribute to an overflow or spill.
 - b. Contractor is responsible for all cleanup and cleanup cost associated with an overflow or spill.

B. Cured-in-Place Liner:

1. Verify lengths in field before cutting liner to length.
2. Wet-Out:
 - a. Tube shall be vacuum impregnated with resin (wet-out) under controlled conditions.
 - 1). Designate vacuum-impregnated location prior to CIPP Liner installation.
 - 2). If requested, allow Village Engineer to inspect materials and procedures used to vacuum impregnate tube.
 - 3). If the Contractor uses an alternative method of resin impregnation, method shall produce the equivalent results of a roller system. An alternative resin impregnation method shall be documented to Village Engineer's and Owner's satisfaction that saturation of CIPP Liner is sufficient.
 - 4). Handle resin impregnated tube to retard or prevent settling until it is ready for insertion.
 - b. Use roller system to uniformly distribute resin throughout tube.
 - c. Volume:
 - 1). Resin shall fill voids in tube material at nominal thickness and diameter; no air spaces or pockets allowed.
 - 2). Adjust by adding excess resin to change resin volume because of polymerization and to allow for migration of resin into cracks and joints in original pipe.
 - d. Complete wet-out process control sheet for every lining completed. Control sheet shall provide the following information:
 - 1). Liner manufacturer.
 - 2). Liner diameter.
 - 3). Number of layers.
 - 4). Resin manufacturer.
 - 5). Resin amount.

- 6). Resin type.
 - 7). Batch number.
 - 8). Catalyst and accelerator name/type.
 - 9). Hardener name/type.
 - 10). Filler name/type, if any.
 - 11). Percent of filler, if any.
 - 12). Mixing ratios.
 - 13). Vacuum pressure of impregnation process.
 - 14). Wet-out start time and date.
3. Insertion:
- a. Install CIPP Liner in accordance with practices outlined in ASTM F1216 for direct inversion installations and ASTM F1743 for pull in installations.
 - b. Dewater existing host pipe for CIPP Liner installation that does not use an inversion method to expand tube against pipe wall.
 - c. If vacuum impregnation process is used, point of vacuum shall be no farther than 25 feet from point of initial resin introduction. After vacuum in tube is established, vacuum point shall be no farther than 75 feet from leading edge of resin. Leading edge of resin slug shall be as near to perpendicular to longitudinal axis of tube as possible.
 - d. Insert wet-out tube through existing manhole or approved access point by means of an inversion process or pulled in method and application of hydrostatic head sufficient to extend tube to next designated manhole or termination point.
 - e. Alternately, tube may be pulled into place and expanded with inflation bladder. Insertion method shall not result in abrasion or scuffing of the tube.
 - f. Once installation has begun, maintain pressure between minimum and maximum pressures until installation has been completed. Pressure shall be sufficient to hold tube tight against host sewer pipe.
 - g. Place temperature gauges between tube and host pipe's invert position to monitor temperature during cure cycle.
 - h. CIPP liner shall be continuous over entire length from manhole to manhole.
 - i. Complete installation process control sheet for every lining completed. Control sheet shall provide the following information:
 - 1). Liner length.
 - 2). Hydrostatic head at point of inversion.
 - 3). Hydrostatic head at termination point.
 - 4). Time inversion process started.
 - 5). Time cutting ends started.
 - 6). Time cutting laterals started.
 - 7). Number of laterals cut.
4. Inflation Bladder Removal: For pulled-in-place installation techniques where inflation bladder is designed not to bond to CIPP liner, remove bladder material from CIPP liner.

5. Curing:
- a. Complete curing process control sheet for every lining completed.
 - b. Control sheets shall provide required temperatures and time for the different steps of curing process; initial cure, post cure, and cooling as outlined in ASTM F1216.
 - 1). Initial cure may be considered completed when exposed portions of flexible tube pipe take a hard set and temperature is adequate, as recommended by manufacturer.
 - c. After installation, apply steam, hot water, or ultraviolet (UV) light as recommended by liner manufacturer.
 - 1). Steam:
 - a). Provide safety system specifically structured for use of steam.
 - b). Thermoset Resin: Designed to cure properly when using steam.
 - c). CIPP Tube Thermoplastic Coating:
 - i). Formulated from material designed specifically to withstand high temperature curing process utilizing steam.
 - ii). Polypropylene/polyethylene blend or equal.
 - d). Equipment:
 - i). Heat source shall be capable of delivering steam throughout section and uniformly raising steam temperature above temperature required to affect cure of resin.
 - ii). Install temperature gauges in the following areas:
 - (a). Incoming steam supply.
 - (b). Outgoing steam supply.
 - (c). Between impregnated tube and pipe invert at lining termination point.
 - e). Steam Temperature: 230 °F, minimum.
 - f). Minimum Interface Temperature between Liner and Tube: 120 °F.
 - g). Pressure Required to Keep Tube Inflated: Per manufacturer's instructions.
 - h). Time: Per manufacturer's instructions.
 - i). Cool Down:
 - i). Send air through steam cured CIPP liner until liner cools down to 120 °F interface temperature.
 - ii). Once 120 °F has been reached, water may be introduced to finish cooling line down to 90 °F.
 - iii). During release of water, prevent vacuum that could damage newly installed CIPP.

- 2). Hot Water:
 - a). Equipment:
 - i). Heat source shall be capable of delivering hot water throughout section and uniformly raising water temperature above temperature required to affect cure of resin.
 - ii). Install temperature gauges in the following areas:
 - (a). Incoming water supply.
 - (b). Outgoing water supply.
 - (c). Between impregnated tube and pipe invert at lining termination point.
 - b). Minimum Interface Temperature between Liner and Tube: 120 °F.
 - c). Time: 3 hours, minimum.
 - d). Cool Down:
 - i). Introduce cool water into CIPP liner to replace water being drained from small hole made in downstream end.
 - ii). Cool liner to temperature below 90 °F before relieving hydrostatic head.
 - iii). During release of water, prevent vacuum that could damage newly installed CIPP.
- 3). UV: If this method of curing is selected, material shall be a polyester needle felt or fiberglass based CIPP liner impregnated with an isophthalic neopentyl glycol resin.
 - a). Curing parameters, such as curing speed, inner air pressure, and wattage, per the manufacturer.
 - b). Optimal curing speed or travel speed of energized UV light sources is determined for each length of liner based on liner diameter, liner thickness, and exothermic reaction temperature.
 - c). Invert liner into pipe with standard pressure drum.
 - d). After completion of inversion process introduce light chain in liner and close ends with couplings.
 - e). Remove and discard inner film material after curing to provide optimal quality of final product.
 - f). Control panel operating UV curing unit light chain may be pulled on a trailer attached to UV unit.
 - g). Flushing of UV cured CIPP liner to reduce styrene residual is not required.

- C. Manholes:
1. CIPP liner terminating in manhole shall be cut in shape and manner approved by Engineer.
 2. Seal pipe openings and fill in annular space using products specified in Part 2 Products.
 - a. connections at manhole opening shall be watertight seal.
 - b. Install seal per manufacturer's instructions.
 - c. Recheck seal repair after 48 hours. If seal does not hold, continue to repair until there are no leaks.
 3. Channels: When CIPP liner is installed continuous through manhole, create per Engineer's instructions. Do not break or shear pipe.
 4. Inverts:
 - a. Finish manhole inverts to provide smooth transition between connections.
 - b. Use CIPP liner material, an approved epoxy, or similar material to form smooth transition to eliminate sharp edges of CIPP, within host pipe, and in manholes at concrete bench and channel invert.
 - c. Invert rehabilitation shall be compatible with manhole rehabilitation activities.
- D. Service Reinstatements:
1. General:
 - a. After liner has been cured in placed, reconnect service connections.
 - b. Using previously-performed CCTV, field locate existing and determine number of service connections.
 - c. Service interruptions shall not exceed 24 hours.
 - d. Do not reconnect services from abandoned or vacant lots, unless directed otherwise by Owner.
 - e. Do not reactivate reconnected services until accepted by Village Engineer. This process shall be completed prior to the work described in Paragraph, Liner Cutting, below and before installation of lateral liner.
 - f. Show distance from nearest downstream manhole to reconnected service on record drawings.
 2. Liner Cutting:
 - a. Cut liner pipe from interior of pipeline using a robotic cutter.
 - b. Holes cut through liner shall be neat and smooth in order to prevent blockage at service connections.
 - c. Cut-in service connections shall be opened to a minimum of 90% of building's sewer flow capacity.
 - d. Recover coupons at downstream manhole and remove.
 3. Make connections to existing lateral using elastomeric boots, full-encirclement clamps, or by other method approved by Village Engineer.
 4. External Reconnection:
 - a. Service connections to new 8" CIPP liner shall be reinstated by excavation and reconnecting service with a PVC full saddle tee.
 - 1). Remove appropriate amount of carrier pipe to allow saddle to be directly connected to outside wall of CIPP.

- 2). Apply epoxy, meeting manufacturer's recommendations, to saddle to ensure watertight seal between saddle and CIPP.
 - 3). Secure saddle with stainless steel bands.
 - 4). After epoxy has set and prior to backfilling, seal open annular space between existing sewer and new liner pipe with nonshrink grout.
 - 5). No infiltration will be allowed at reinstated service connections.
- b. Service lateral connections to new 10" CIPP liner and larger to be made with an Inserta-Tee manufactured by Inserta Fittings Company. Remove appropriate amount of carrier pipe to allow Inserta-Tee to be installed.

3.07 CONSTRUCTION

(Not Used)

3.08 REPAIR/RESTORATION

- A. Site Restoration, General: The Contractor shall be aware of the conditions at each repair location. This shall include but not be limited to trees, shrubbery, landscaping, structures, fences, mail boxes, driveways, curbs, sidewalks, pavements, etc. The Contractor shall videotape all ROE areas prior to use. All pre-construction conditions shall be fully restored as close to its original condition as practicable.
- B. Site Restoration, Grass Areas: Repair sites that are located in grass areas shall be backfilled with native soil and then seeded and mulched Item 659.09 of the City of Columbus CMS including all other items referenced therein. The cost for seeding and mulching shall be included in the unit bid price for the repair.
- C. Site Restoration, Paved Areas: Repair sites that are located in pavement areas shall be restored in accordance with City of Columbus Standard Drawing 1441, latest edition. The cost for pavement restoration shall be included in the unit price bid for the repair.
- D. Acknowledgment of Completion: When working on private property, the Contractor shall obtain Acknowledgement-of-Completion (AOC) from the property owner that work was completed in accordance with the Right of Entry (ROE) agreement. No payment for this work will be made until the copy of AOC is submitted to the Village Engineer.

3.09 RE-INSTALLATION

(Not Used)

3.10 FIELD QUALITY CONTROL

- A. General:
 1. CIPP liner installation shall be free from visual defects such as foreign inclusions, dry spots, keel, boat hull, pinholes, wrinkles, and other deformities.
 - a. Defects and deformities may, at discretion of Owner, be cause for rejection of entire liner.

- b. Correct failed CIPP liner and defective CIPP liner from post-installation television inspection or test reports for structural values or thickness as determined by the Village Engineer.
 - c. Method of repair, which may require field or workshop demonstration, shall be approved by the Village Engineer prior to commencement of the Work.
 - d. Remove and replace pipe identified with defects or deformities.
- B. CCTV Visual Inspection: All sewer segments repaired using CIPP liner shall be visually inspected in accordance with SS-2, Sewer Video Recording and Inspection.
- C. Properties Testing:
 - 1. Sampling and Measuring:
 - a. Cut one 12-inch long, minimum, restrained pipe section from cured liner. Samples will be used to satisfy material testing requirements.
 - b. Prepare samples in accordance with restrained sample method referenced in ASTM F1216 or ASTM F2019.
 - c. Take restrained samples from excess cured CIPP liner at manhole connection where installation was started or terminated.
 - d. Each sample shall be large enough to provide three specimens for tensile testing and five specimens for flexural properties testing.
 - 2. Field Thickness Testing:
 - a. Perform prior to conducting laboratory tests.
 - b. Take wall thickness measurements in accordance with ASTM D2122.
 - c. Make a minimum of four measurements, evenly spaced, on each test specimen.
 - d. Calculate average thickness using measured values.
 - e. Average thickness shall be equal or greater than required design thickness.
 - f. Failure of thickness test shall be grounds for rejection for CIPP liner.
 - 3. Laboratory Testing:
 - a. Send one sample to independent laboratory and test for modulus of elasticity and flexural strength.
 - b. Preparation and testing standards shall be performed in accordance with approved submittals.
 - c. Failure of a test may be grounds for rejection of CIPP liner. Test second sample at direction of the Owner.
 - 4. Resin Sampling:
 - a. Wet-out facility resin mixing equipment shall have a valve downstream of the mixing function and immediately upstream of application of mixed resin to tube where resin samples may be drawn.
 - b. Batch mix facilities, if any, shall provide for sampling of mixed batch.
 - c. Submitted "wet-out" schedule cannot be modified without 24 hour notice to Village Engineer.
 - d. Resin samples shall be drawn at times determined by Village Engineer.

5. Physical samples removed for testing as requested by Village Engineer shall be individually labeled and logged to record the following:
 - a. Owner's Project number and title.
 - b. Sample number.
 - c. Segment number of line as noted on plans.
 - d. Date and time of sample.
 - e. Name of Contractor.
 - f. Location and by whom tested.
 - g. Results of test.
 - h. Street name and address.
 - i. Starting and ending manhole identification number for each length of pipe lined.
 - j. Label as follows:
 - 1). Sample A: Restrain Sample.
 - 2). Sample B: Restrain Sample.

D. CIPP Liner Correction:

1. Correct failed liner or liner deemed unacceptable by the Owner as a result of CCTV inspection, laboratory testing, or thickness testing.
2. Remedy for failed laboratory and thickness testing shall be as shown in the following table:

Pipe Correction			
Test	Required Value	Test Result	Remedy
Flexural Strength	4,500 psi	4,300 to 4,490 psi	10% unit price reduction
	4,500 psi	4,100 to 4,290 psi	30% unit price reduction
	4,500 psi	Less than 4,100 psi	Pipe replacement
Flexural Modulus	250,000 psi	238,000 to 249,000 psi	10% unit price reduction
	250,000 psi	225,000 to 237,900 psi	30% unit price reduction
	250,000 psi	Less than 225,000 psi	Pipe replacement
Thickness	Minimum or design, whichever is greater	≥90% to 100%	No unit price reduction
	Minimum or design, whichever is greater	≥80%, but less than 90%	15% unit price reduction
	Minimum or design, whichever is greater	<80%	Pipe replacement

3.11 ADJUSTING
3.12 CLEANING

(Not Used)
(Not Used)

3.13 DEMONSTRATION
3.14 PROTECTION
3.15 SCHEDULES

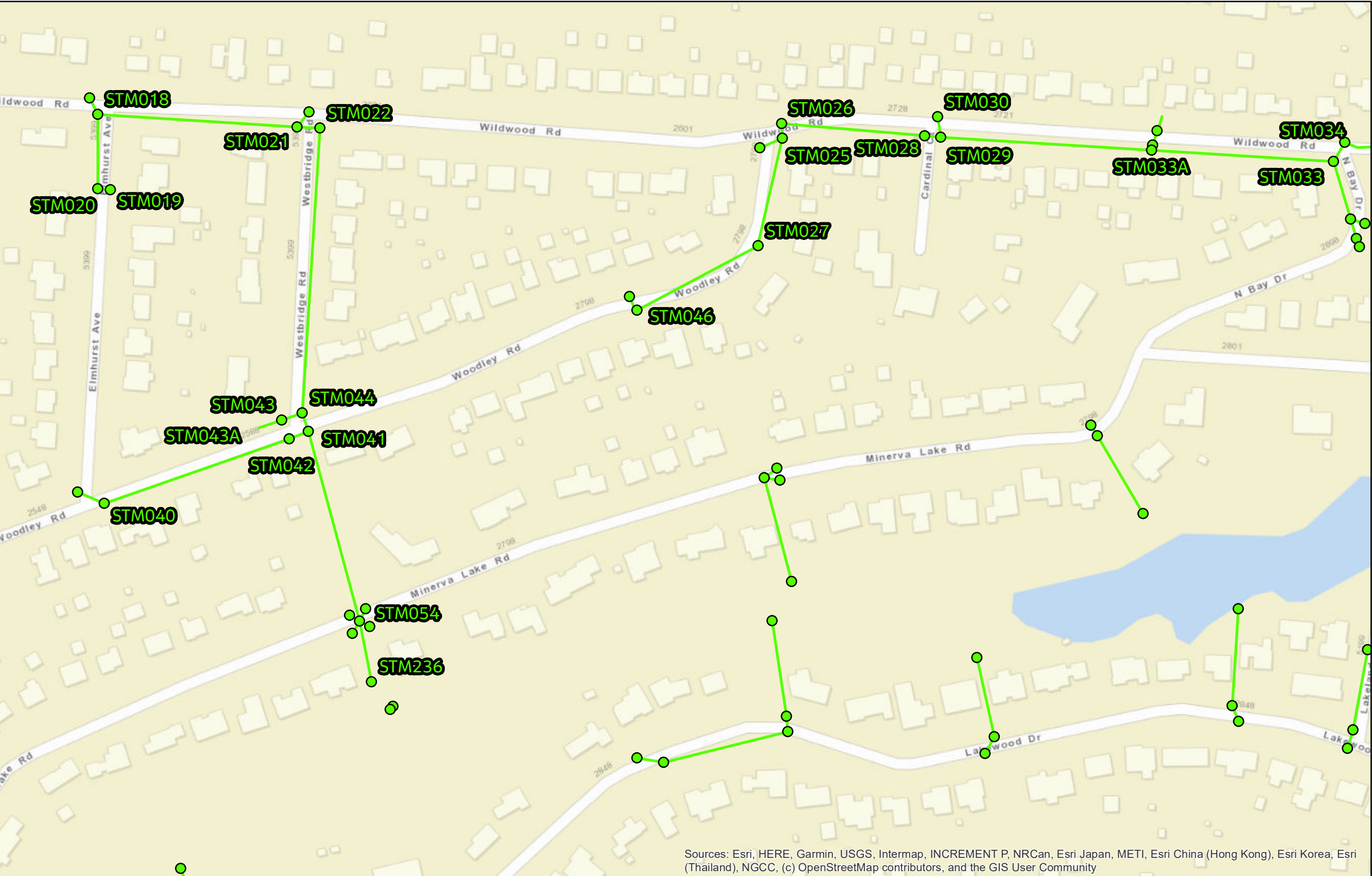
(Not Used)
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END OF SECTION

PART 6

ATTACHMENTS

Map of Village Storm Sewers



Village of Minerva Park

Legend

- Village of Minerva Park Storm Structure
- Village of Minerva Park Storm Sewer



1:2,152

0 90 180 360 Feet

Coordinate System : Ohio State Plan South

Datum: NAD 1983 , NAVD 1988

Projection: Lambert Conformal Conic

Sources: Franklin Co. GIS,

Map Created: 4/30/2020

Notes

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

