

**RESOLUTION APPROVING THIRD PARTY AGREEMENT BY AND BETWEEN THE ASHTABULA COUNTY BOARD OF COMMISSIONERS, THE VILLAGE OF ANDOVER AND KLINGINSMITH ENTERPRISES INC.FOR IMPROVEMENTS TO RUSSTIK DR LIFT STATION LOCATED IN ANDOVER VILLAGE, CDBG, COMMUNITY SERVICES AND PLANNING DEPARTMENT**

WHEREAS, Jake Brand, Director of Community Services & Planning, has presented a contract for the approval of the Board, to-wit:

**Scope:** Third party agreement for construction of a new Sanitary Sewer Lift Station, installation of new 3 inch force main, complete with necessary testing, installation of a new 20kW Diesel Generator, installation of new sanitary manhole, and the installation of new shoulder/access drive located in Andover Village.

**Parties:** Ashtabula County Commissioners, 25 W. Jefferson St. Jefferson OH 44047  
Village of Andover, PO Box 1267 Andover OH 44003  
Klinginsmith Enterprises Inc. PO Box 5135 Conneaut Lake PA 16316

**Cost:** \$109,700.00 from CDBG total project costs \$181,517.25

**Term:** begins upon board approval and completed no later than May 28, 2021; now

THEREFORE, BE IT RESOLVED, By the Board of Commissioners of Ashtabula County, Ohio that the contract noted above is approved in accordance with the copy now on file in this office.

**ASHTABULA COUNTY COMMISSIONERS  
CERTIFICATION PAGE**

**Resolution No. 2021-75**

**February 09, 2021**

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**Upon the motion of J.P. Ducro IV, seconded by Casey R. Kozlowski.**

**VOTE:**

**Kathryn L. Whittington  
J.P. Ducro IV  
Casey R. Kozlowski**

**Aye  
Aye  
Aye**

**CERTIFICATE OF CLERK**

IT IS HEREBY CERTIFIED that the foregoing is a true and correct transcript of a resolution acted upon and duly passed by the Board of County Commissioners of Ashtabula County, Ohio, on the date noted above.



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Lisa Hawkins, Clerk of the Board  
Board of County Commissioners  
Ashtabula County, Ohio

# Andover Village

CONTRACT DOCUMENTS & SPECIFICATIONS

For

**Russtik Drive Lift Station Project**

Submitted To:

Village of Andover

134 Maple St  
Andover, Ohio 44003

September 2020

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## ADVERTISEMENT FOR BIDS/PUBLIC NOTICE TO BIDDERS

Sealed bids will be received at the office of the Village Administrator, Village of Andover, 134 Maple St., Andover, Ohio 44003 until 12:00 pm (noon) October 23, 2020 and will be opened and read immediately thereafter for the:

### RUSSTIK DRIVE LIFT STATION PROJECT

Each Bid shall contain the full name of each person or company submitting a Bid. Each Bid must be accompanied by either a bid bond in the amount of 100% of the bid amount with a surety satisfactory to the Village of Andover or by a certified check, cashier's check, or letter of credit upon a solvent bank in an amount not less than 10% of the bid amount in favor of the aforesaid Village of Andover.

Bid packages and any supplemental information desired by the Bidder may be obtained in electronic form or mailed to bidder by going to the web URL: <http://www.Smolen.com>. The bid packages and supplemental information can be instantly downloaded in electronic form free of charge, picked up at a non-refundable cost of \$125.00, or mailed at a non-refundable cost of \$145.00.

Questions concerning obtaining the bid packages and supplemental information should be directed to Smolen Engineering, Ltd., 1876 State Route 46 North, Jefferson, Ohio 44047, phone: (440) 576-0505.

Each bid shall be filled on forms furnished with Bid Documents and shall be delivered in a sealed envelope, the outside properly marked with Project Title, Date, and Time of Bid Opening on or before the date and hour specified.

A pre-bid meeting will be held at 11:00a.m on October 16, 2020 at the site on Russtik Drive. The station is located on the West side of the road, just south of Carol Ct and the drive to the treatment plant.

This contract is being partially funded with Community Development Block Grant funding and will be subject to Davis Bacon prevailing wage rates. The successful bidder will be subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended.

The Village of Andover reserves the right to waive any and all informalities and the right to reject any and all bids.

BY ORDER OF

Rich Mead, Village Administrator

*Publish: Star Beacon*

9/30/2020

10/7/2020

## INSTRUCTION TO BIDDERS

### PART 1 - DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidder have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meaning indicated below:
- A. **Bidder or Contractor** - The corporation, partnership, or individual proposing or under Contract to furnish service, material, labor, and/or equipment listed in the Bid Documents.
  - B. **Calendar Day** - Every day shown on the calendar.
  - C. **Issuing Office** - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
  - D. **Successful Bidder** - the lowest, responsible, and responsive Bidder to whom Owner makes an award.

### PART 2 - COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of the Bidding Documents shall be obtained as stated in the Legal Notice or Invitation to Bid.
- 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 the use of incomplete sets of Bidding Documents.
- 2.3 Owner and Engineer, in making copies of Bidding Documents 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.

### ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.1 To demonstrate Bidder's qualifications to perform the Work, each Bidder must be prepared to submit within five (5) days of the Bid opening upon Owner's request written evidence such as financial data, present commitments, and other data as may be called for below or in the Supplementary Conditions.

## **ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS AND SITE**

- 4.1 It is the responsibility of each Bidder before submitting a bid to:
- A. Examine thoroughly the Contract Documents and other related data identified in the Bidding Documents;
  - B. Visit the site to become familiar with and satisfy Bidder as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work;
  - C. Consider federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of Work;
  - D. Promptly notify Engineer of all conflicts, errors, ambiguities, or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents and/or site conditions.
- 4.2 Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to the Owner and Engineer by owners of such underground facilities or others, and Owner and Engineer do not assume any responsibility for the accuracy or completeness thereof unless it is expressly provided in the Supplementary Conditions.
- 4.3 Provisions concerning responsibility for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and underground facilities, and possible changes in the Contract Documents due to differing or unanticipated conditions appear in the General Conditions.

## **ARTICLE 5 - SITE AND OTHER AREAS**

- 5.1 The lands upon which the Work is to be performed, right-of-way, easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract 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. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

## **ARTICLE 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 to all parties recorded by Engineer as

having received Bidding Documents. Questions received less than five 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 be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

#### **ARTICLE 7 - BID SECURITY**

- 7.1 Each bid must be accompanied by Bid security made payable to the Owner in form of a certified or cashier's check in the amount of 10% of the amount Bid or an original Bid bond in the amount of 100% of amount bid per ORC 153.54 and 153.571. The certified or cashier's check shall be from a financial institution authorized to transact business in the State of Ohio and acceptable to the Owner.
- 7.2 If for any reason the Successful Bidder should fail or refuse to enter into a Contract within 14 Calendar Days of the Notice of Award, the Bid security shall be forfeited to the Owner, not as penalty, but as liquidated damages.

#### **ARTICLE 8 - CONTRACT TIMES**

- 8.1 The times for Substantial Completion and readiness for final payment is set forth in the Agreement (or incorporated therein by referencing to the attached Bid Form).

#### **ARTICLE 9 - LIQUIDATED DAMAGES**

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

#### **ARTICLE 10 - SUBSTITUTE AND "OR EQUAL" ITEMS**

- 10.1 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Engineer is set forth in the General Conditions and may be supplemented in the Specifications.

## **ARTICLE 11 - SUBCONTRACTORS**

- 11.1 The Bidder shall state on the appropriate Contract Form the names of all Subcontractors proposed and the items of work they are to be assigned. All work not assigned to a Subcontractor shall be assumed by the Owner to be performed by the Bidder.
- 11.2 The Owner reserves the right to approve all Subcontractors proposed by the Bidder. If the Owner, after due investigation, rejects the use of a proposed Subcontractor, the apparent successful Bidder may either submit an acceptable substitution without increase in bid price or decline substitution and withdraw his bid without sacrificing his bid security. Any listed Subcontractors to whom the Owner does make written objection prior to the Notice of Award, shall be deemed acceptable to the Owner.
- 11.3 No Contractor shall be required to employ any Subcontractor, person, or organization against whom he has reasonable objection.

## **ARTICLE 12 - BID FORM**

- 12.1 The Bid Form is included with the Bidding Forms and all blanks shall be completed by printing in ink or by typewriter and the Bid signed in ink. All names must be typed or printed below the signature. Erasures or alterations shall be initialed in ink by the person signing the Bid Form.
- 12.2 Bids 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.
- 12.3 Bids 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 below the signature.
- 12.4 The Bid shall contain an acknowledgement of receipt of all Addenda.

## **ARTICLE 13 - SUBMITTAL OF BID**

- 13.1 Bids shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title, the name and address of Bidder, and shall be 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 plainly marked on the outside with the notation "BID ENCLOSED."
- 13.2 All Bidding Forms are to be completed and submitted along with the Bid.

## **ARTICLE 14 - MODIFICATIONS AND WITHDRAW OF BID**

- 14.1 If a Bidder wishes to withdraw his bid prior to the opening of Bids, he shall state his purpose in writing to the Owner before the time fixed for opening, and when reached it shall be handed to him unread.
- 14.2 After the opening of bids, no Bidder may withdraw his bid for a period of 60 days.

## **ARTICLE 15 - OPENING OF BIDS**

- 15.1 Bids will be opened at the time and place indicated in the Legal Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available at the following web URL:  
<http://www.Smolen.com>.

## **ARTICLE 16 - BIDS REMAIN SUBJECT TO ACCEPTANCE**

- 16.1 All bids will remain subject to acceptance for 60 days after the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date. Should there be any reason why the Contract cannot be awarded within the specified period; the time may be extended in writing by mutual agreement between the Owner and Bidder. If the Contract is to be awarded, Owner will give successful Bidder a Notice of Award within 60 days after the date of the Bid unless the time is extended by mutual agreement between the Owner and Bidder.

## **ARTICLE 17 - AWARD OF CONTRACT**

- 17.1 Owner reserves the right to reject any or all Bids, including without limitations, nonconforming, non-responsive, 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 to negotiate contract terms with the Successful Bidder.
- 17.2 Discrepancies between the multiplication of units of Work at 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. Discrepancies between words and figures will be resolved in favor of the words.
- 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 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.
- 17.5 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

## **ARTICLE 18 - CONTRACT SECURITY**

- 18.1 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment Bonds or Contract Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such Bonds.

## **ARTICLE 19 - SIGNING OF AGREEMENT**

- 19.1 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement. Within 14 Calendar Days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within 14 Calendar Days thereafter, Owner shall deliver one fully signed counterpart to the Successful Bidder.

## **ARTICLE 20 - STATE SALES TAX**

- 20.1 Materials to be incorporated in this work may be purchased by the Contractor free of state sales tax.

## **ARTICLE 21 - PREVAILING WAGE**

- 21.1 The Contractor and all Subcontractors shall comply with the prevailing wage requirements within this proposal.

## **ARTICLE 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.
- 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.

## **ARTICLE 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 Workers' Compensation (OBWC) Drug-Free Workplace Program (DFWP) or a comparable program approved by the OBWC.

## **ARTICLE 24 - OHIO ETHICS LAW**

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

**STATE OF OHIO EQUAL EMPLOYMENT OPPORTUNITY**

**REQUIREMENTS AND BID CONDITIONS FOR**

**OPWC-ASSISTED CONSTRUCTION PROJECTS**

The following materials are provided for use by local subdivisions in receipt of financial assistance from the Ohio Public Works Commission for the development or redevelopment of capital infrastructure improvements. The materials relate to the State of Ohio's equal employment opportunity requirements for contractors when they participate in State-assisted construction projects.

**These materials must be inserted into the contracting subdivision's bidding documents for such State-assisted projects, and must be regarded as an integral component of the bidder's response. The bidder must, as a part of its bid response: elect one of the two Bidder's Affirmative Action Requirements, adopt the Bidder's EEO Covenants, and complete the Bidder's Certification. Failure to complete the required sections may cause the bidder's proposal to be rejected as being non-responsive to the State's Equal Employment Opportunity Requirements and in non-compliance with the State Equal Employment Opportunity Bid Conditions. In addition, the bidder must submit a copy of a valid Certificate of Compliance for Equal Employment Opportunity purposes prior to the execution of a contract.**

Should there be any questions regarding the use or meaning of any portion of these materials, questions should be directed to the Equal Opportunity Division at 30 East Broad Street, 18th Floor, Columbus, Ohio 43266-0408, Phone (614)466-83

**"APPENDIX A" OF THE STATE EEO BID CONDITIONS**

**MINORITY MANPOWER UTILIZATION GOALS AND TIMETABLES**

The following minority goals listed are expressed in terms of percentages of work hours for each trade to be used by the contractor in a designated area. Designated areas are defined as Ohio's Standard Metropolitan Statistical Areas (SMSA). They are: Akron, Cincinnati, Cleveland, Columbus, Dayton, Toledo and Youngstown-Warren. In cases where the project is not located in a designated area, the contractor may adopt minority utilization goals of the near/nearest designated area.

<b>AKRON</b>		<b>CINCINNATI</b>		<b>COLUMBUS</b>	
<u>Trade</u>		<u>Trade</u>		<u>Trade</u>	
Asbestos Worker	10.0%	Asbestos Worker	9.0%	Asbestos Worker	10.0%
Boilermakers	10.0%	Boilermakers	9.0%	Boilermakers	10.0%
Bricklayers	10.0%	Carpenters	10.0%	Bricklayers	10.0%
Electricians	10.0%	Elevator Constructors	11.0%	Carpenters	10.0%
Elevator Constructors	10.0%	Floor Layers	10.0%	Cement Mason	10.0%
Glaziers	10.0%	Glaziers	10.0%	Elevator Constructors	10.0%
Ironworkers	10.0%	Lathers	10.0%	Glaziers	10.0%
Operating Engineers	10.0%	Marble, Tile & Terrazzo		Ironworkers	10.0%
Painters	10.0%	Workers & Helpers	8.0%	Lathers	10.0%
Plasterers	10.0%	Millwrights	10.0%	Operating Engineers	10.0%
Plumbers	10.0%	Operating Engineers	11.0%	Painters	10.0%
Roofers	10.0%	Painters	11.0%	Plasterers	10.0%
Sheet Metal Workers	10.0%	Pipefitters	11.0%	Plumbers & Pipefitters	10.0%
Plasterers	10.0%	Roofers	10.0%	Plumbers	11.0%
Sheet Metal Workers	10.0%	Sheet Metal Workers	11.0%	Other Trades	10.0%
		Other Trades	11.0%		
<b>CLEVELAND</b>		<b>DAYTON</b>		<b>YOUNGSTOWN - WARREN</b>	
Asbestos Workers	17.0%	Asbestos Workers	11.0%	Asbestos Workers	9.0%
Boilermakers	10.0%	Boilermakers	11.0%	Bricklayers	9.0%
Carpenters	16.0%	Carpenters	11.0%	Carpenters	9.0%
Electricians	20.0%	Electricians	11.0%	Electrical Workers	9.0%
Elevator Constructors	16.0%	Elevator Constructors	11.0%	Elevator Constructors	9.0%
Glaziers	17.0%	Ironworkers	11.0%	Floor Mechanics	9.0%
Ironworkers	13.0%	Lathers	11.0%	Glaziers	9.0%
Operating Engineers	17.0%	Millwrights	11.0%	Ironworkers	9.0%
Painters	17.0%	Operating Engineers	11.0%	Lathers	9.0%
Pipefitters	17.0%	Painters	11.0%	Operating Engineers	9.0%
Plasterers	20.0%	Plumbers	11.0%	Painters & Pipefitters	
Plumbers	17.0%	Sheet Metal Workers	11.0%	& Steamfitters	9.0%
Roofers	17.0%	Other Trades	11.0%	Sheet Metal Workers	9.0%
Other Trades	17.0%			Teamsters & Chauffeurs	9.0%
<b>TOLEDO</b>					
Asbestos Workers	9.0%	Lathers	9.0%		
Boilermakers	9.0%	Operating Engineers	9.0%		
Carpenters	9.0%	Painters	9.0%		
Electricians	9.0%	Plumbers	9.0%		
Elevator Constructors	9.0%	Sheet Metal Workers	9.0%		
Glaziers	9.0%	Other Trades	9.0%		
Ironworkers	9.0%				

## "APPENDIX B" OF THE STATE EEO BID CONDITIONS

### SPECIFIC AFFIRMATIVE ACTION STEPS

The following Affirmative Action steps are directed at increasing minority utilization:

(1) The contractor should maintain a file of the names and addresses of each minority and female referred to it by any individual or organization and what action was taken with respect to each such referred individual, and if the individual was not employed by the contractor, and the reasons therefore. If such individual was sent to the union hiring hall for referral and not referred back by the union or if referred back by the union or if referred, not employed by the contractor, the file should document this and the reason therefore.

To Demonstrate Compliance: Maintain a file of the names, addresses, telephone numbers, and craft of each minority and female applicant showing (a) the date of contact and whether the person was hired; if not, the reason. (b) if the person was sent to a union for referral, and the results (c) follow-up contacts when the contractor was hiring.

(2) The contractor should promptly notify the State Contracting Agency when the Union or Unions with which the contractor has collective bargaining agreements does not refer to the contractor a minority or female worker referred (to the union) by the contractor, or when the contractor has information that the union referral process has impeded efforts to meet its goals.

To Demonstrate Compliance: Have a copy of letters sent, or do not claim the union is impeding the contractors' efforts to comply.

(3) The contractor should disseminate its Equal Employment Opportunity policy within its organization by including it in any company newsletters and annual reports; by advertising at reasonable intervals in union publications; by posting of the policy; by specific review of the policy with minority and female employees; and by conducting staff meetings to explain and discuss the policy.

To Demonstrate Compliance: Have a written EEO policy which includes the name and how to contact the contractor's EEO Officer and (a) include the policy in any company policy manuals, (b) post a copy of the Policy on all company bulletin boards (in the office and on all job sites), (c) records, such as reports or diaries, etc., that each minority and female employee is aware of the Policy and that it has been discussed with them, (d) that the policy has been discussed regularly at staff meetings and (3) copies of newsletters and annual reports which include the Policy.

(4) The contractor should continually monitor all personnel activities to ensure that its EEO policy is being carried out, including the evaluation of minority and female employees for promotional opportunities on a quarterly basis and the encouragement of such employees to seek those opportunities.

To Demonstrate Compliance: Have records that the company EEO Officer reviews all: (a) monthly workforce reports, (b) hiring and terminations, (c) training provided on-the-job, (d) minority and female employees quarterly for promotion and encourages them to prepare for and seek promotion. The records should be the EEO Officer's job description, reports, memos, personnel files, etc., documenting the activities for possible discriminatory patterns.

(5) The contractor should disseminate its EEO policy externally by informing and discussing it with all recruiting sources: by advertising it in news media, specifically including minority and female news media; and by notifying and discussing it with all subcontractors.

To Demonstrate Compliance: Have copies of (a) letters sent, at least six months or at the start of each new major contract, to all recruiting sources (including labor unions) requiring compliance with the

Policy, (b) advertising, which has the EEO "tagline" on the bottom, and (c) purchase order and subcontract agreement forms will include or make reference to the State EEO Covenant, Appendix A or B of the Ohio Administrative Code 123:2-3-02.

(6) The contractor should make specific and reasonably recurrent oral and written recruitment efforts directed at minority and women's organizations, and training organizations with the contractor's recruitment area.

To Demonstrate Compliance: Have a record either in a follow-up file for each organization or on the reverse of the notification letter sent under Item 1, above, of the dates, individuals contacted and the results of the contract from telephone calls or personal meetings with the individuals or groups notified under Item 1.

(7) The contractor, where reasonable, should develop on-the-job training opportunities and participate and assist in all Department of Labor funded and/or approved training programs (including Apprenticeship) Programs relevant to the contractor's employee needs consistent with its obligations in the Bid Conditions

To Demonstrate Compliance: Have records of contributions in cash, equipment supplied and/or contractor personnel provided as instructors for Bureau of Apprenticeship and Training approved or Department of Labor funded training programs and records of the hiring and training of minorities and females referred to Company by such programs.

(8) The contractor should solicit bids for subcontracts (and joint ventures) from available minority and female subcontractors engaged in the trades covered by the Bid Conditions, including circulation of minority and female contractors associations.

To Demonstrate Compliance: Have copies of letters or other direct solicitation of bids for subcontracts/joint ventures from minority/female contractors with a record of the specific response and any follow-up the contractor has done to obtain a price quotation or to assist a minority/female contractor in preparing or reducing a price quotation; have a list of all minority/female subcontracts awarded or joint ventures participated in with dollar amounts, etc.

#### **EXPLANATION OF AN ACCEPTABLE AFFIRMATIVE ACTION PROGRAM:**

An Affirmative Action Program is a set of specific and result-oriented procedures to which a Contractor shall apply every good faith effort. The objective of those procedures and efforts is to assure equal employment opportunity. An acceptable Affirmative Action Program will include an analysis of all trades employed by the Contractor within the last year with an explanation of whether Minorities are currently being under-utilized in any one or more trades. A necessary prerequisite to the development of a satisfactory Affirmative Action Program is the identification and analysis of problem areas inherent in Minority employment and an evaluation of opportunities for utilization of Minority group personnel.

#### **Part I - Basic Contents of an Affirmative Action Program:**

1. Development or reaffirmation of the contractor's EEO policy in all personnel actions.
2. Formal internal and external dissemination of contractor's EEO policy.
3. Establishment of responsibilities for implementation of the contractor's affirmative action program.
4. Identification of problem areas. (deficiencies) by organizational units and job classification.

5. Establishment of goals and objectives by organizational units and job classification, including timetables for completion.
6. Development and execution of action oriented programs designed to eliminate problems and further designed to attain established goals and objectives.
7. Design and implementation of internal audit and reporting systems to measure effectiveness of the total programs.
8. Compliance of personnel policies and practices with Federal sex discrimination guidelines (41 CFR Part 60-20).
9. Active support of local and national community action programs and community service programs, designed to improve the employment opportunities of minorities.
10. Consideration of ethnic minorities and women not currently in the work force having requisite skills who can be recruited through affirmative action measures.
11. Summary data on applicant flow, hires, terminations and promotions, and training for the last twelve months or the last one hundred applicants, hires, etc., whichever is less.

#### Part II - Analysis of Individual Trades

1. The minority population of the labor area surrounding (contractor's) projects.
2. The size of the minority unemployment force in the labor area surrounding (the contractor's) projects.
3. The percentage of minority work force as compared with the total work force in the immediate labor area
4. The general availability of minorities having requisite skills in the immediate labor area.
5. The availability of minorities having requisite skills in the area in which the contractor can reasonably recruit.
6. The availability of promotable minority employees within the contractor's organization.
7. The anticipated expansion, contraction, and turnover of an in the work force.
8. The existence of training institutions capable of training minorities in the requisite skills.
9. The degree of training which the contractor is reasonably able to undertake as a means of making all job classes available to minorities.

Goals, timetables and affirmative action commitments must be designed to correct any identifiable deficiencies. Where deficiencies exist and where numbers or percentages are relevant in developing corrective action, the contractor shall establish and set forth specific goals and timetables. Such goals and timetables, with supporting data and the analysis thereof shall be a part of the contractor's written affirmative action program. Where the contractor has not established a goal, its written affirmative action program must specifically analyze each of the factors listed above, and must detail its reason for a lack of a goal. The goals and timetables should be attainable in terms of the contractor's analysis of its deficiencies and its entire action. Thus, in establishing its goals and timetables, the contractor should consider the results which could be reasonably expected from its good faith efforts to make its overall affirmative action program work. If the contractor does not meet its goals and timetables, the

contractor's good faith efforts shall be judged as to whether the contractor is following its program and attempting to make the program work toward the attainment of its goals.

Support data for the above analysis and program shall be compiled and maintained as pan of the contractor's affirmlative action program. This data should include applicant flow data and applicant rejection ratios indicating minority status.

Compliance Status: No State Contractor's compliance status shall be judged alone by whether or not he reaches his goals and meets his timetables. Rather each Contractor's compliance posture shall be reviewed and determined by reviewing the contents of his program, the extent of his adherence to his program and his good faith efforts to make his program work toward the realization of the program's goals within the timetables set for completion.

### **"APPENDIX C" OF THE STATE EEO BID CONDITIONS**

#### **FK 1.ALE UTILIZATION GOALS**

OAC 123:2-3-05 Required utilization analysis and goals

(A) Each state-involved contractor shall include in his/her affirmative action program the information and analysis required pursuant to part IV 401-C of appendix A of rule 123 :2-1-01 of the Administrative Code. in addition to female utilization requirements pursuant to the governor's "Executive Order 84-9" and this rule.

(B) As required by the governor's "Executive Order 84-9", the utilization of women shall be, at a minimum, that currently in use by the federal government as of February 15, 1984. This requirement stated at C.F.R. part 60-4 is 6.9 percent utilization of women. This requirement shall remain at 6.9 percent unless further amended by the governor in a subsequent order. This requirement shall be met by a determination of work hours utilized in the same manner as minority utilization hams are calculated.

**THIS IS AN ADDENDUM WHICH MUST BE ACKNOWLEDGED IN YOUR BID IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. ACKNOWLEDGMENT MEANS THAT THIS PAGE MUST BE INCLUDED IN YOUR BID. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.**

**Date of Issue:** October 16, 2020

Re: Project Name: Russtik Drive Lift Station  
Andover Village  
Engineer's Project Number: SEL1596

**Addendum No. 1**

Clarification: 3" Force main size  
Soil Report  
Be on the look Monday for the New Pole details

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

Reminder: Bid opening is next Friday, October 23, 2020 at 12:00p.m (noon)

**It will not be necessary for you to sign this addendum; however, this addendum cover page must be included in order for your bid to be considered for award. By signing the bid proposal, you are agreeing to all requirements of the bid proposal, including all addenda, provided you have acknowledged the addenda as required above.**

Respectfully,

John Smolen  
Smolen Engineering, Ltd.



**THIS IS AN ADDENDUM WHICH MUST BE ACKNOWLEDGED IN YOUR BID IN ORDER FOR YOUR BID TO BE CONSIDERED FOR AWARD OF THIS PROJECT. ACKNOWLEDGMENT MEANS THAT THIS PAGE MUST BE INCLUDED IN YOUR BID. FAILURE TO INCORPORATE CHANGED QUANTITIES OR ITEMS IN YOUR SUBMISSIONS WILL RESULT IN THE REJECTION OF YOUR BID.**

**Date of Issue:** October 19, 2020

Re: Project Name: Russtik Drive Lift Station  
Andover Village  
Engineer's Project Number: SEL1596

**Addendum No. 2**

Clarification: New Pole details from First Energy

Notice to all Bidders and Suppliers to please be advised of the attached Proposal Addendum.

Reminder: Bid opening is Friday, October 23, 2020 at 12:00p.m (noon)

**It will not be necessary for you to sign this addendum; however, this addendum cover page must be included in order for your bid to be considered for award. By signing the bid proposal, you are agreeing to all requirements of the bid proposal, including all addenda, provided you have acknowledged the addenda as required above.**

Respectfully,

John Smolen  
Smolen Engineering, Ltd.

**Addendum #2**



## **SECTION 2 - BIDDING FORMS**



BID GUARANTY AND CONTRACT BOND

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

\_\_\_\_\_

as Principal, and \_\_\_\_\_

as Sureties, are hereby held and firmly bound unto

\_\_\_\_\_

hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on \_\_\_\_\_ to undertake the project known as:

\_\_\_\_\_

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of

\_\_\_\_\_ dollars (\$ \_\_\_\_\_)

(If the foregoing blank is not filled in, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if the blank is filled in the amount stated must not be less than the full amount of the bid including alternates, in dollars and cents.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

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

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



NOW ALSO, if the said Principal shall well and faithfully do and perform the things agreed to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materials suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materials suppliers or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of said contract or in or to the plans and specifications therefore shall in any wise affect the obligations of said Surety on its bond.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal: \_\_\_\_\_

Attest:

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

(SEAL)

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

\_\_\_\_\_  
Witness as to Principal

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

Surety: \_\_\_\_\_

Attest:

(SEAL)

\_\_\_\_\_  
Witness as to Surety

By: \_\_\_\_\_ (SEAL)  
Attorney-In-Fact

Surety Company Address:

Surety Agent's Address:

\_\_\_\_\_  
Street

\_\_\_\_\_  
Agency Name

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Street

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Telephone

**IMPORTANT** - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitations.

Surety companies and their agents or attorneys-in-fact must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization in the Bid.



BID GUARANTY

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

\_\_\_\_\_

as Bidder, am hereby held and firmly bound unto,

\_\_\_\_\_

as Owner in the penal sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) as witnessed by the attached certified check, cashier's check, or letter of

credit to undertake the project known as \_\_\_\_\_

\_\_\_\_\_

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

NOW, THEREFORE, if the Owner accepts the bid of the Bidder and the Bidder fails to enter into a proper contract and provide an acceptable Contract Bond in accordance with the bid, plans, details, specifications, and bills of material; and the Owner for the difference between his bid and that of the next lowest bidder, or for a penal sum not to exceed ten percent of the amount of the bid, whichever is less. If the Owner does not award the contract to the next lowest bidder, but resubmits the project for bidding, the Bidder shall be liable to the Owner for a penal sum not to exceed ten percent of the amount of the bid or the costs in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

Attest: \_\_\_\_\_ (s)

Bidder: \_\_\_\_\_

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

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

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

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

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

(SEAL)

Bidder's Address:

\_\_\_\_\_ Street

\_\_\_\_\_ City State Zip

\_\_\_\_\_ Telephone



**BID FORM**

**RUSSTIK DRIVE LIFT STATION PROJECT (SEL1596)**

**PART 1 - BID RECIPIENT**

1.1 This Bid is submitted to:

**Village of Andover  
134 Maple St.  
Andover, Ohio 44003**

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.

**PART 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.

**PART 3 - BIDDER'S REPRESENTATIONS**

3.1 In submitting this Bid, Bidder represents that:

A. 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.

<u>Addendum No.</u>	<u>Addendum Date</u>
#1	10/14/2020
#2	10/19/2020
_____	_____

B. 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.

C. 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.

D. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary 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 Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. 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.

#### **PART 4 - FURTHER REPRESENTATIONS**

##### **4.1 Bidder further represents that:**

- A. 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;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.



KLINGSMITH ENTERPRISES, INC.  
P.O. BOX 5135 \* 12984 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377

PART 5 - BASIS OF BID

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

Lump Sum Base Bid - Russtik Drive Lift Station Project, Complete:

one hundred eighty one thousand five  
hundred seventeen dollars and twenty  
five cents.  
(words)

\$ 181,517.25  
(numerals)

All specified cash allowances are included in the price(s) set forth above and have been computed in accordance with Paragraph 11.02 of the General Conditions and Section 01210 of the Technical Specifications.



THE VILLAGE OF ANDOVER RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS, TO WAIVE ANY INFORMALITY IN BIDS OR TO ACCEPT IN WHOLE OR IN PART SUCH BIDS AS MAY BE DEEMED IN THE BEST INTEREST OF THE VILLAGE OF ANDOVER.

<u>Kingsmith Enterprises Inc.</u>	<u>Dan Dawson</u>
Company Name	Representative
<u>Herb Sportsman Rd / PO Box 535</u>	<u>814-382-4818</u>
<u>Conneaut Lake, PA 16316</u>	
Address	Telephone
	<u>Cell # 216-789-9565</u>



**PART 6 - TIME OF COMPLETION**

- 6.1 Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with Paragraph 14.07B of the General Conditions on or before the dates or within the number of calendar days as 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 within the Contract Times.

**PART 7 - ATTACHMENTS TO THIS BID**

- 7.1 The following documents are attached to and made a condition of this Bid:
  - A. Required Bid security in the form of Bid Bond
  - B. All forms listed in Section 2 - Bidding Forms, "Table of Contents."

**PART 8 - DEFINED TERMS**

- 8.1 The terms used in this Bid with initial capital letters have the meanings stated in the Instruction to Bidders, the General Conditions, and Supplementary Conditions.

**PART 9 - BID SUBMITTAL**

This bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
(Individual's signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_



A Corporation

Corporation Name: Klinginsmith Enterprises Inc. (SEAL)

State of Incorporation: Pennsylvania

Type (General Business, Professional, Service, Limited Liability): Construction Contractor

By: Daniel Dawson  
(Signature -- attach evidence of authority to sign)

Name (typed or printed): Daniel Dawson

Title: Vice President (CORPORATE SEAL)

Attest: Alma Ferguson

Date of Authorization to do business in Ohio is 11 / 20 / 1995  
PA.

Miscellaneous

Bidder's Business Address \_\_\_\_\_  
\_\_\_\_\_

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

SUBMITTED on 10/23, 2020

**KLINGINSMITH ENTERPRISES, INC.**  
P.O. BOX 5136 \* 12984 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377



CERTIFIED COPY OF CORPORATE RESOLUTION

I hereby certify that I am the duly elected and acting Secretary of Klingensmith  
Enterprises Inc., a Corporation duly organized and existing under the laws of  
the State of Pennsylvania; that on the 14<sup>th</sup> day of October, 2020  
the Board of Directors of said Corporation authorized and approved a certain proposal to Village of  
Andover (insert name of Owner) for the construction of certain improvements for  
Village of Andover (insert name of Owner) by said Corporation and any  
Contract resulting therefrom, and empowered the Vice President (insert title of Officer)  
of said Corporation to execute said proposal and Contract for and in behalf of said Corporation; that said  
authority is not contrary to any provision in the Articles of Incorporation or Code of Regulations or Code of  
Bylaws of said Corporation; that said authority has not been rescinded or modified; and that  
Daniel Dawson is the duly elected and action Vice President  
(insert title of officer) of said Corporation.

IN WITNESS WHEREOF, I have hereunto subscribed my name on October  
14, 2020.

Alyna Ferguson  
Secretary



NON-COLLUSION AFFIDAVIT

STATE OF Pennsylvania )  
COUNTY OF Crawford ) ss.

I, Daniel Dawson (name of person signing Affidavit), being duly sworn deposes and says as follows:

That the Affiant is the Vice President (title) of Kingsmith Enterprises Inc. (name of corporation or company)

the Bidder who made the foregoing proposal or bid; that the bid proposal was genuine and not collusive; that said bidder did not collude, conspire, connive, or agree, directly or indirectly, with any bidder or other person, that such other bidder or person should refrain from bidding or submit a sham bid; further, such bidder did not in any manner, directly or indirectly, seek by agreement, or collusion, or communication, or conference with any person, to fix the bid price of either this bidder or any other bidder or to fix overhead, profit or cost element of the bid price; that said bidder did not collude, conspire or agree to secure any advantage against the Owner, or any person interested in the proposed contract. Affiant further says that all statements contained in this bid or proposal are true to the best of Affiant's knowledge and belief. Affiant further says that this bidder did not, directly or indirectly, submit this bid or the contents thereof, or divulge information or data thereto, to any other bidder or association, or to any agent or member thereof.

Daniel Dawson  
Affiant's Signature

Sworn to and subscribed before me this 14<sup>th</sup> day of October, 2020

Alyssa Ferguson  
Notary Public

(SEAL)

Crawford County, Pennsylvania

Commonwealth of Pennsylvania - Notary Seal  
Alyssa Ferguson, Notary Public  
Crawford County  
My commission expires March 8, 2021  
Commission number 1275214  
Member, Pennsylvania Association of Notaries

My commission expires March 8, 2021.



AFFIDAVIT OF COMPLIANCE WITH  
ORC 5719.042

STATE OF Pennsylvania )  
COUNTY OF Crawford ) ss.

- I, Daniel Dawson, (person signing Affidavit) hereby make oath and say that:
- (1) I am the Vice President (insert title) of Klinginsmith Ent. the firm proposing to enter into a contract with the Village of Andover (Owner)
  - (2) At the time the bid was submitted, the firm named above was not (was, was not) charged with delinquent personal property taxes on the general tax list of personal property in Ashtabula County, Ohio.
  - (3) The amount due and unpaid delinquent person property taxes are \$ 0 and penalties and interest on the same are \$ 0

Klinginsmith Enterprises Inc.  
Contractor

Daniel Dawson  
Signature

Daniel Dawson  
Name

Vice President  
Title

Sworn to and subscribed before me this 14th day of October, 20 20.

Commonwealth of Pennsylvania - Notary Seal  
Alyssa Ferguson, Notary Public  
Crawford County  
My commission expires March 8, 2021  
Commission number 1275214  
Member, Pennsylvania Association of Notaries

(SEAL)

Alyssa Ferguson  
Notary Public

Crawford County, Ohio, Pennsylvania

My commission expires

March 8, 20 21



VERIFICATION REGARDING FINDINGS FOR RECOVERY  
ORC 9.24

STATE OF Pennsylvania )  
COUNTY OF Crawford ) ss.

I, Daniel Dawson (person signing Affidavit) hereby make oath and say that:  
(1) I am the Vice President (insert title) of Klingensmith Ent. the  
firm proposing to enter into a contract with the Village of Andover (Owner)  
(2) That, as of the date of this Affidavit, the firm name above (has, has not)  
been issued a finding for recovery by the Auditor of the State of Ohio as defined by ORC  
117.28 which is unresolved.

Klingensmith Enterprises, Inc.  
Contractor  
Daniel Dawson  
Signature  
Daniel Dawson  
Name  
Vice President  
Title

Sworn to and subscribed before me this 10<sup>th</sup> day of November, 2020

Commonwealth of Pennsylvania - Notary Seal  
Alyssa Ferguson, Notary Public  
Crawford County  
My commission expires March 8, 2021  
Commission number 1275214  
Member, Pennsylvania Association of Notaries

(SEAL)

Alyssa Ferguson  
Notary Public  
Crawford County, Pennsylvania  
My commission expires  
March 8, 2021



EXPERIENCE RECORD\*

The Bidder is required to state the character of previous work, give references, and such other detailed information as will enable the Owner to determine responsibility, including experience, skill, and financial standing. Projects shall be for Owners other than this Project and for Engineer other than this Projects' Engineer.

*ATTACHED*

PROJECT NAME: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

\_\_\_\_\_

OWNER: \_\_\_\_\_ PERSON TO CONTACT: \_\_\_\_\_

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

CITY/STATE/ZIP: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

\_\_\_\_\_

OWNER: \_\_\_\_\_ PERSON TO CONTACT: \_\_\_\_\_

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

CITY/STATE/ZIP: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

\_\_\_\_\_

OWNER: \_\_\_\_\_ PERSON TO CONTACT: \_\_\_\_\_

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

CITY/STATE/ZIP: \_\_\_\_\_

\*USE ADDITIONAL COPIES OF THIS FORM AS REQUIRED



SUPPLEMENTAL QUESTIONNAIRE

Do you intend to sublet any portions of the work? NO

If so, state: \_\_\_\_\_

NAME OF SUBCONTRACTOR	AMOUNT OF SUB-CONTRACT	ITEMS OF WORK

What equipment do you own that is available for the proposed work? ATTACHED

QUANTITY	ITEM	DESCRIPTION, SIZE, CAPACITY, ETC.	CONDITION	YEARS OF SERVICE	PRESENT LOCATION

What equipment do you intend to purchase or rent (indicate which) for use on the proposed work, should the contract be awarded to you?

QUANTITY	ITEM	DESCRIPTION, SIZE, CAPACITY, ETC.	APPROXIMATE COST

How and when will you pay for equipment to be purchased? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Are you the defendant of any pending suits? No

If so, describe the nature of the suit and name the Court and County \_\_\_\_\_

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

List all incomplete contracts:

OWNER AND LOCATION	AMOUNT OF CONTRACT	PERCENTAGE OF WORK DONE	REQUIRED DATE OF COMPLETION

List all incomplete Sub-contracts:

SUB-CONTRACTOR FOR	OWNER AND LOCATION	AMOUNT OF CONTRACT	PERCENTAGE OF WORK DONE	REQUIRED DATE OF COMPLETION
	N/A			



STATE OF Pennsylvania )  
COUNTY OF Crawford ) ss.

Before me, a Notary Public, in and for said County, personally appeared Daniel Dawson, of Klingensmith Enterprises Inc. being duly sworn deposes and says that the answers to the foregoing questions and all statements therein contained are true and correct.

Daniel Dawson  
Signature  
Daniel Dawson  
Name  
Vice President  
Title

Sworn to and subscribed before me this 14<sup>th</sup> day of October, 20 20.

Commonwealth of Pennsylvania - Notary Seal  
Alyssa Ferguson, Notary Public  
Crawford County  
My commission expires March 8, 2021  
Commission number 1275214  
Member, Pennsylvania Association of Notaries

Alyssa Ferguson  
Notary Public  
Crawford Pennsylvania  
County, Ohio.  
My commission expires  
March 8, 20 21.

(SEAL)



**RESOLUTION OF**  
**KLINGINSMITH ENTERPRISES INC.**


RESOLVED that Alyssa R. Ferguson, Secretary and Treasurer of Klinginsmith Enterprises Inc. is hereby AUTHORIZED and APPROVED to execute any and all corporate documents including, but not limited to, bid documents, Powers of Attorney, Construction Documents, Titles to Corporate Vehicles, Registrations, and Contracts and that Alyssa R. Ferguson's signature as Secretary and Treasurer is hereby approved in all respects by the Corporation.

It is further RESOLVED that Alyssa R. Ferguson, Secretary and Treasurer of Klinginsmith Enterprises Inc. is hereby AUTHORIZED and APPROVED to take all actions necessary with all utility companies and credit card companies on behalf of Klinginsmith Enterprises Inc. and to make any and all changes or modifications as may be necessary and that Alyssa R. Ferguson's signature on any such documents as Secretary and Treasurer is hereby APPROVED in all respects by the corporation.

It is further RESOLVED that Daniel Dawson, Vice President of Klinginsmith Enterprises Inc., is hereby AUTHORIZED and APPROVED to take all actions necessary and to execute any documents necessary on behalf of the Corporation including but not limited to the submission of bids and Corporation documents necessary for the continuation of business.

RESOLVED this 17<sup>th</sup> day of August 2020.

ATTEST:

  
Alyssa R. Ferguson, Secretary/Treasurer

Klinginsmith Enterprises Inc.

By:   
Barbara Klinginsmith, President





# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

## **Principal Members Background and Experience**

Dan Dawson – Estimator  
42 years experience  
[dandawson59@outlook.com](mailto:dandawson59@outlook.com)

Alyssa Ferguson – Office Manager  
12 years experience  
[lvsal006@gmail.com](mailto:lvsal006@gmail.com)

Mike Gillette – Site Supervisor/Operator  
32 years experience

Ronald Rendulic – Foreman/Operator  
35 years experience

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**PO Box 5135  
12984 Sportsman Road  
Conneaut Lake, Pa. 16316  
Phone (814) 382-4818  
Fax (814) 382-2377**





# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

Willow Street Waterline (\$123,931)

Owner: Sheffield Township, PA Municipal Authority

Engineer: E&M Engineers (814) 362-5546

Completion: July 2017

SR 59 Waterline Replacement (\$222,408)

Owner: Smethport, PA Authority

Engineer: Gannett Fleming Inc. (724) 662-2402

Completion: December 2017

First & Hall Street Waterline Replacement (\$58,318)

Owner: The Municipal Authority of Sheffield Township

Engineer: E & M Engineers (814) 362-5546

Completion: June 2018

Bessemer Street Sanitary Sewer Replacement (\$77,645)

Owner: Meadville Sewer Authority

Engineer: Greenman-Pedersen Inc. (814) 725-8659

Completion: September 2018

Route 20 Waterline Extension Project (\$362,589)

Owner: Fairview Township Sewer and Water Authority

Engineer: Rabell Surveying and Engineers (724) 756-4384

Completion: September 2018

Beech Lane Waterline Replacement (\$51,690)

Owner: Meadville Area Water Authority

Engineer: Gannett Fleming Inc. (724) 662-2402

Completion: October 2018

Roche Park Force Main Replacement (\$149,390)

Owner: Vernon Township

Engineer: Greenman-Pedersen Inc. (814) 725-8659

Completion: July 2019

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# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

Gabreski Waterline Replacement Project (\$100,845)

Owner: Complanter Township

Engineer: Stifler McGraw (814) 775-0309

Completion: July 2019

Elm Street Waterline Replacement Project Phase 1 (\$217,661)

Owner: Tionesta Borough

Engineer: E&M Engineers (814) 362-5546

Completion: August 2019

Elm Street Waterline Replacement Project Phase 2 (\$142,000)

Owner: Tionesta Borough

Engineer: E&M Engineers (814) 362-5546

Completion: August 2019

East Lake Road, Irvine Dr. to Bartlett Rd Water Main Replacement (\$1,019,175.49)

Owner: Erie Water Works

Engineer: KLH Engineers (412) 494-0510

Completion: August 2019

McKees Lane Sanitary Force Main (\$557,450.10)

Owner: City of Niles, OH

Engineer: MS Consultants (330) 744-5321

Completion: Anticipated Completion May 2020

Belmont Park Sanitary Sewer Improvement Project (\$383,962.95)

Owner: Trumbull County, OH

Engineer: Lynn, Kittinger, & Nobel, Inc. (330) 373-1244

Completion: Anticipated Completion May 2020

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# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

Conneaut Lake Joint Municipal Authority Rt. 285 Force Main Redirection (\$229,547)

Owner: Conneaut Lake Joint Municipal Authority

Engineer: Chester Engineers (412) 809-6616

Completion: September 2016

Bankson Road Culvert Replacement and Surface Improvement Project (\$76,996)

Owner: Borough of Rouseville, PA

Engineers: KLH Engineers (412) 494-0510

Completion: September 2016

Watermain Replacement 3<sup>rd</sup> Street/Liberty to Elk Street (\$34,282)

Owner: City of Franklin, PA

Engineers: Wodzianski Engineers (814) 432-8257

Completion: October 2016

Bunday/Rhodemeyer Waterline Replacement Project (\$85,655)

Owner: Linesville, PA Borough

Engineer: Rabell Surveying and Engineers (724) 756-4384

Completion: October 2016

Oak Road Waterline (\$70,583)

Owner: Complanter Township

Engineer: Stifler McGraw (814) 775-0309

Completion: May 2017

Stream Crossing at Pennbrook Run (\$50,040)

Owner: Bradford City Water Authority

Engineer: E&M Engineers (814) 362-5546

Completion: June 2017

Stream Crossing at Foster Brook (\$49,977)

Owner: Bradford City Water Authority

Engineer: E&M Engineers (814) 362-5546

Completion: June 2017

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# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

## **Recent Completed Contracts**

State Street and Reservoir Road Waterline Replacement Project (\$2,465,363)

Owner: Albion, PA Borough

Engineer: Hill Engineering, Inc. (814) 725-8659

Completion: April 2014

Twin Waterline Replacement Project SR3002 (\$1,312,260)

Owner: Borough of Ridgeway, PA

Engineer: Hill Engineers, Inc. (814) 725-8659

Completion: September 2014

Route 99 Sanitary Sewer Extension Project (\$568,586)

Owner: Washington Township Erie County, PA

Engineer: Deiss and Halmi Engineering (814) 725-4319

Completion: December 2014

Route 98 Sewer Extension Project (\$142,842)

Owner: Vernon Twp Sanitary Authority – Crawford Co. PA

Engineer: Hill Engineers Inc. (814) 725-8659

Completion: August 2015

Pressure Sewer Installation East (\$1,009,510)

Owner: Neshannock Creek Watershed Joint Municipal Authority

Engineer: Gannett Fleming Inc. (724) 662-2402

Completion: June 2016

The Lodge at Glendorn Sewer Force Main to Crookerhouse Lane (\$558,836)

Owner: FHO Corporation

Engineer: Deiss and Halmi Engineering (814) 734-3640

Completion: June 2016

East Spring Street Storm System Installation (\$61,471)

Owner: Titusville, PA Borough

Engineer: Stifler McGraw (814) 775-0309

Completion: August 2016

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**Fax (814) 382-2377**





# **Klingensmith Enterprises, Inc.**



**Utility Line Contracting - Water & Sewer  
Petroleum / Environmental Services  
Site Development - Excavating & Construction**

## **Equipment**

1. Caterpillar Rubber Tired Loader/ Backhoe
2. Caterpillar 320-L Excavator
3. Hitachi 135US-3 Excavator
4. Yanmar VIO-70 Excavator
5. Mack Tandem Dump Trucks
6. Ford Single Axle Dump Trucks
7. Volvo Tractor & Rodgers Detachable Lowboy
8. Volvo Tandem Tool Truck w/ Air Compressor & Tools
9. John Deere 304 Rubber Tired Loader
10. Caterpillar Crawler Loader
11. Caterpillar D4HXL Dozer
12. Trail King & General 20 ton tag trailers
13. NPK Hydraulic Tamper
14. NPK Hydraulic Breaker
15. Sullair & Atlas Copco Air Compressors
16. Jet-Vac Vactor & Line Locator
17. Spectra Physics Pipe & Rotating Lasers
18. Hydrostatic Water Tester
19. Rock Away Landscape Equipment
20. Trench, Manhole, and Stone Boxes
21. Penn DOT approved road signs
22. Vermeer 24x40 Direction Drill

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**PO Box 5135  
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Conneaut Lake, Pa. 16316  
Phone (814) 382-4818  
Fax (814) 382-2377**



**Penn Western Bonding, LLC  
285 Pine Creek Road  
Wexford, Pa. 15090**

**April 24, 2019**

**RE: Klinginsmith Enterprises  
12984 Sportsman Road  
Conneaut Lake, Pa. 16316**

**To Whom It May Concern,**

**Please be advised that Marquette Savings Bank has been doing business with Klinginsmith Enterprises and Brian Klinginsmith since 1996. Our relationship with Mr. Klinginsmith and his company has been a steady professional one with mutual benefits and we consider them to be an excellent customer.**

**Klinginsmith Enterprises currently has a line of credit available to them with a credit limit of \$250,000. This is a revolving line and is handled in a satisfactory manner.**

**Please feel free to call me with any questions that you may have. My phone number is 814-382-7829.**

**Sincerely,**



**Anita S. Hans  
Vice President**



CERTIFICATION OF COMPLIANCE WITH AIR AND WATER ACTS

(Applicable to Federally assisted construction contracts and related subcontracts exceeding \$100,000)

Compliance with Air and Water Acts

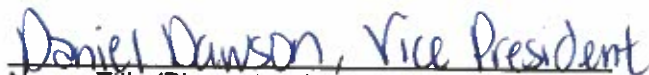
During the performance of this contract, the contractor and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect hereto, at 40 CFR Part 15, as amended.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the owner, the following:

- (1) A stipulation by the Contractor or subcontractors, that any facility to be utilized in the performance of any List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
- (2) Agreement by the contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- (3) A stipulation that as a condition of the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the EPA List of Violating Facilities.
- (4) Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraph 91) through (4) of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provisions.

  
\_\_\_\_\_  
Signature

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Name, Title (Please type)



CERTIFICATE OF COMPLIANCE WITH FEDERAL LABOR STANDARDS PROVISIONS

I, the undersigned Daniel Dawson, the duly authorized representative of Klingensmith Enterprises Inc. (hereinafter referred to as the contractor, do hereby certify that I have examined the Federal Labor Standards Provisions (HUD-4010) with related certificates and documents, and all of the conditions surrounding these provisions including, but not limited to the following:

1. The contractor is responsible for employing only eligible subcontractors who have certified eligibility in written contract containing Federal Labor Standards Provisions.
2. The contractor is responsible for the payment of federal prevailing wage rates by its subcontractors while performing work under this contract. If the subcontractor fails to pay the prevailing wages as specified in this contract, the prime contractor may be required to make appropriate restitution to the underpaid workers.
3. The contractor is responsible for collecting weekly certified payrolls from its subcontractors, reviewing said payrolls for compliance with the federal wage rates, and forward same to the local government contract authority.
4. The contractor also understands that only those classifications listed in the original bid documents are applicable to this job, and no special classifications may be incorporated after contract award.

The prime contractor hereby agrees to perform all of its responsibilities in conformance with the Federal Labor Standards Provisions both diligently and effectively.

BY:

Daniel Dawson  
(Signature)

DATE: 10/14/2020

TITLE:

Vice President



KLINGSMITH ENTERPRISES, INC.  
P.O. BOX 5135 \* 12984 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377

COMMUNITY DEVELOPMENT BLOCK GRANT

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

NAME OF PRIME CONTRACTOR	PROJECT NUMBER (If any)
Klinginsmith Enterprises, Inc.	SEL 1596

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless report is submitted.

CONTRACTOR'S CERTIFICATION

NAME AND ADDRESS OF BIDDER (Include ZIP Code)

KLINGSMITH ENTERPRISES, INC.  
P.O. BOX 5135 \* 12984 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377

- Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.  
 Yes    No
- Compliance reports were required to be filed in connection with such contract or subcontract.  
 Yes    No
- Bidder has filed all compliance reports due under applicable instructions, including SF-100.  
 Yes    No
- Have you even been or are you being considered for sanction due to violation of Executive Order 11246, as amended?  
 Yes    No

NAME AND TITLE OF SIGNER (Please type)

Daniel Dawson, Vice President

SIGNATURE

*Daniel Dawson*

DATE

10/14/2020





# INDEPENDENT CONTRACTOR/WORKER ACKNOWLEDGMENT

Ohio Public Employees Retirement System  
277 East Town Street, Columbus, Ohio 43215-4642

Employer Outreach: 1-888-400-0965  
www.opers.org

This form is to be completed if you are an individual who begins providing personal services to a public employer on or after Jan. 7, 2013 but are not considered by the public employer to be a public employee and will not have contributions made to OPERS. This form must be completed not later than 30 days after you begin providing personal services to the public employer.

## STEP 1: Personal Information

Social Security Number

EIN- 25-1777525

First Name

MI

Last Name

Klingensmith Enterprises Inc.  
1984 Sportsman Rd / PO Box 5135  
Conneaut Lake, PA 16316

## STEP 2: Public Employment Information

Name of Public Employer

Village of Andover

Employer Contact

First Name

MI

Last Name

Employer Code

Employer Contact Phone Number

814 - 382 - 4818

Service Provided to Public Employer

Lift Station Project

Start Date of Service

Month

Day

Year

/ /

End Date of Service

Month

Day

Year

/ /



### STEP 3: Acknowledgment

The public employer identified in Step 2 has identified you as an independent contractor or another classification other than a public employee. Ohio law requires that you acknowledge in writing that you have been informed that the public employer identified in Step 2 has classified you as an independent contractor or another classification other than a public employee for the services described in Step 2 and that you have been advised that contributions to OPERS will not be made on your behalf for these services.

If you disagree with the public employer's classification, you may contact OPERS to request a determination as to whether you are a public employee eligible for OPERS contributions for these services. Ohio law provides that a request for a determination must be made within five years after you begin providing personal services to the public employer, unless you are able to demonstrate through medical records to the Board's satisfaction that at the time the five-year period ended, you were physically or mentally incapacitated and unable to request a determination.

By signing this form, you are acknowledging that the public employer for whom you are providing personal services has informed you that you have been classified as an independent contractor or another classification other than a public employee and that no contributions will be remitted to OPERS for the personal services you provide to the public employer. This acknowledgment will remain valid as long as you continue to provide the same services to the same employer with no break in service regardless of whether the initial contract period is extended by any additional agreement of the parties. You also acknowledge that you understand you have the right to request a determination of your eligibility for OPERS membership if you disagree with the public employer's classification.

**This form must be retained by the public employer and a copy sent to OPERS. The public employer's failure to retain this acknowledgment may extend your right to request a determination beyond the five years referenced above.**

Signature



Do not print or type name

Today's Date

10 / 14 / 2020



**COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM  
CONTRACTOR'S CERTIFICATION  
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS**

Project Name: Rustik Drive Lift Station Project

1. The undersigned, having executed a contract with the County of Ashtabula for the construction of the above-identified project, acknowledges that:
  - (a) The Labor Standards provisions are included in the aforesaid contract; and
  - (b) Correction of any infractions of the aforesaid conditions, including infractions by any of his subcontractors and any lower tier subcontractors, in his responsibility.
  
2. He certifies that:
  - (a) Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act, as amended [40 U.S.C. 276a-2(a).]
  - (b) No part of the aforementioned contract has been or will be subcontract to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.
  
3. He agrees to obtain and forward to the aforementioned recipient within ten days after the execution of any subcontract, including those executed by his subcontractors any lower tier subcontractors, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements executed by the subcontractors.
  
4. He certifies that:
  - (a) The legal name and the business address of the undersigned is:

Klingensmith Enterprises Inc.  
12984 sportsman Rd / PO Box 5135  
Conneaut Lake, PA 16316
  - (b) The undersigned is:
    - (1) A Single Proprietorship
    - (2) A corporation organized in the State of Pennsylvania
    - (3) A Partnership
    - (4) Other Organization (Describe): \_\_\_\_\_



(c) The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS
Daniel Dawson	V. President	KLINGINSMITH ENTERPRISES, INC. P.O. BOX 5135 * 12984 Sportsman Rd. Conneaut Lake, PA 16316 Phone (814) 382-4818 Fax (814) 382-2377

(d) The names and address of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are: (if none, so state):

NAME	TITLE	NATURE OF INTEREST

(e) The names and addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are: (If none, so state):

NAME	TITLE	TRADE CLASSIFICATION

Date: 10/14/2020

Klinginsmith Enterprises Inc.  
(Contractor Name)

Daniel Dawson  
(By)

**WARNING**

U.S. CRIMINAL CODE, Section 1010, Title 18, U.S.C., provides in part: "Whoever . . . makes, passes, utters or publishes any statement, knowing the name to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."



CERTIFICATION OF BIDDER REGARDING  
SECTION 3 AND SEGREGATED FACILITIES

Kingsmith Enterprises Inc.  
Name of Prime Contractor

Rustic Drive Lift Station  
Project Name  
SEL1596  
Project Number  
Project

The undersigned hereby certifies that:

- (a) Section 3 provisions are included in the Contract;
- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000); and
- (c) No segregated facilities will be maintained.

Name and Title of Signer (Print or Typed): Daniel Dawson, Vice President

Daniel Dawson  
Signature

10/14/2020  
Date




CONTRACTOR

Section 3 Plan Format

Kinginsmith Enterprises Inc. agrees to implement the following specific affirmative action steps directed at increasing the utilization of lower income residents and businesses within the City/Village/County of Aurora.

- A. To ascertain from the locality's CDBG program official the exact boundaries of the Section 3 covered project area and where advantageous, seek the assistance of local official in preparing and implementing the affirmative action plan.
- B. To attempt to recruit from within the city the necessary number of lower income residents through: Local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U.S. Employment Service.
- C. To maintain a list of all lower income area residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- \*D. To insert this Section 3 plan in all bid documents, and to require all bidders on subcontracts to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.
- \*E. To ensure that subcontracts which are typically let on a negotiated rather than a bid basis in areas other than Section 3 covered project areas, are also let on a negotiated basis, whenever feasible, when let in Section 3 covered project area.
- \*F. To formally contact unions, subcontractors and trade associations to secure their cooperation for this program.
- G. To insure that all appropriate project area business concerns are notified of pending subcontractual opportunities.
- H. To maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.
- I. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 plan.
- J. To list on Table A, information related to proposed subcontracts.
- K. To list on Table B, all projected workforce needs for all phases of this project by occupation, trade, skill level and number of positions.

  
Signature  
Vice President  
Title

10/14/2020  
Date

\*Loans, grants, contracts and subsidies for less than \$10,000 will be exempt.



CERTIFICATION FOR BUSINESSES  
REGARDING SECTION 3 ELIGIBILITY  
FOR ASHTABULA COUNTY

Name of Business Klingensmith Enterprises Inc.  
Street Address 12984 Sportsman Road  
City Conneaut Lake State PA Zipcode 16316  
Contact Person Daniel Dawson  
Phone # 814-382-4819 Email dandawson59@outlook.com

**Type of Business**

- Corporation  
 Partnership  
 Joint Venture  
 Sole Proprietorship  
 Other (describe \_\_\_\_\_)

(Check one that applies, and attach documents evidencing formation of business entity)


*A Section 3 resident is a public housing resident or an individual who resides in the metropolitan areas and who is considered to be a low (families whose income do not exceed 80% of area median income) to very-low (families whose incomes do not exceed 50% of area median income) income person.*

The above business certifies that it is a Section 3 business concern based on: (check all that apply)

- \_\_\_ 1. The business is 51% or more owned by Section 3 residents.  
\_\_\_ 2. At least 30% of the business' permanent, full time employees are currently Section 3 residents or were Section 3 residents within the past 3 years.  
\_\_\_ 3. The business commits to subcontracting 25% of the dollar award of all subcontracts to Section 3 business concerns who meet the qualification of (1) or (2) above.

For all boxes that apply, please provide documentation showing proof of the information stated.

The undersigned certifies that the above statements are true, complete and correct to the best of his/her knowledge.

  
Signature

10/14/2020  
Date

Daniel Dawson  
Print Name







COMMUNITY DEVELOPMENT BLOCK GRANT  
CERTIFICATION BY PROPOSED SUBCONTRACTOR REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY

NAME OF PRIME CONTRACTOR <i>Klinginsmith Enterprises Inc.</i>	PROJECT NUMBER (if any) <i>SEL 15916</i>
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INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause, and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless report is submitted.

SUBCONTRACTOR'S CERTIFICATION

NAME AND ADDRESS OF SUBCONTRACTOR (Include ZIP Code)

**KLINGINSMITH ENTERPRISES, INC.**  
P.O. BOX 5135 \* 12984 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377

- Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.  
 Yes     No
- Compliance reports were required to be filed in connection with such contract or subcontract.  
 Yes     No
- Bidder has filed all compliance reports due under applicable instructions, including SF-100.  
 Yes     No
- Have you even been or are you being considered for sanction due to violation of Executive Order 11246, as amended?  
 Yes     No

NAME AND TITLE OF SIGNER (Please type)

*Daniel Dawson, Vice President*

SIGNATURE

*Daniel Dawson*

DATE

*10/14/2020*



**STATE OF OHIO EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS**

**NOTICE TO CONTRACTORS:**

The provisions of the Ohio Administrative Code (OAC) 123:2-3-02 through 124:2-9 regarding Equal Employment Opportunity on State Construction Contracts and State-assisted Construction Contracts, and OAC 123:2-3-02 through 123:2-9 regarding Equal Employment Opportunity and Female Utilization Goals are applicable to this project, and each contractor will be required to comply in all aspects of these provisions.

**CERTIFICATE OF COMPLIANCE FOR EEO PURPOSES:**

All prime contractors must secure a valid Certificate of Compliance from the Department of Administrative Services, Equal Opportunity Division, prior to execution of a construction contract.

See <http://www.das.ohio.gov/Divisions/EqualOpportunity/CertificateofCompliance/tabid/129/Default.aspx> for instructions for electronic filing.

>>> Does this bidder have a valid Certificate of Compliance?  Yes  No

>>> If "No" to the above, will this bidder be able to obtain a valid Certificate of Compliance prior to the execution of a contract?  Yes  No

**Bidder must provide a "Yes" answer to one or the other of the above questions.**

**BIDDER'S AFFIRMATIVE ACTION REQUIREMENTS:**

Each prime contract bidder must submit an Affirmative Action Program regarding equal employment opportunity to and receive approval from the State Equal Employment Opportunity Coordinator prior to the bid opening. **OR** the prime contract bidder must evidence within its bid the adoption of the Minority Manpower Utilization Goals and Timetables set forth in "Appendix A" and the Specific Affirmative Action Steps set forth in "Appendix B" of the State Equal Employment Opportunity Bid Conditions.

>>> Has the prime contract bidder prepared and submitted an Affirmative Action Program to the State Equal Employment Opportunity Coordinator and that program has been approved by the State Equal Employment Opportunity Coordinator prior to the bid opening?  Yes  No

**OR**

>>> If "No", with this bid response, the prime contract bidder hereby adopts the Minority Manpower Utilization Goals and Timetables set forth in Appendix "A" and the Specific Affirmative Action Steps set forth in Appendix "B" of the State Equal Employment Opportunity Bid Conditions.  Yes  No

**Bidder must provide a "Yes" answer to one or the other of the above affirmative action alternatives.**

**BIDDER'S EEO COVENANTS:**

Throughout its performance of any contract awarded to it on this State-assisted project, the prime contract bidder agrees to the following covenants:

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



and selection for training, including apprenticeship.

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

- (2) The contractor will in all solicitations or advertisements for employees placed by or on behalf of the prime contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, military status, national origin, disability, age, or ancestry.
  - (3) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State Administering Agency advising the said labor union or workers' representatives of the contractor's commitments under this covenant and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
  - (4) The contractor will comply with all provisions of the Ohio Department of Administrative Services, Equal Opportunity Division and with the implementing rules, regulations and applicable orders of the State Equal Employment Opportunity Coordinator.
  - (5) The contractor agrees to fully cooperate with the State Administering Agency, the State Equal Employment Opportunity Coordinator and with any other official or agency, or the State or Federal government which seeks to eliminate unlawful employment discrimination, and with all other State and Federal efforts to assure equal employment practices under its contract and the contractor shall comply promptly with all requests and directions from the State Administering Agency, the State Equal Employment Opportunity Coordinator and any of the State of Ohio officials and agencies in this regard, both before and during construction.
  - (6) Full cooperation as expressed in clause (5), above, shall include, but not be limited to, being a witness and permitting employees to be witnesses and complainants in any proceeding involving questions of unlawful employment practices, furnishing all information and monthly utilization work hour reports required by the OAC 123: 2-9-01 and by the rules, regulations and orders of the State Equal Employment Opportunity Coordinator pursuant thereto, and permitting access to its books, records, and accounts by the State Administering Agency and the State Equal Employment Opportunity Coordinator for purposes of investigation to ascertain compliance with such rules, regulations and orders. Specifically, contractors will submit workforce utilization reports to the State Equal Opportunity Coordinator by the 10th of each month. The monthly reports must be electronically submitted through the following website: <http://das.owo.gov/EOD/CCinputForm.29.htm>
  - (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of its contract or with any of the said rules, regulations, or orders, its contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further State Contracts or State-assisted Construction Contracts in accordance with procedures authorized in OAC 123:2-3 through 2-9 and such other sanctions may be instituted and remedies invoked, as provided in OAC 123:2-3 through 2-9 or by regulation; or order of the State Equal Employment Opportunity Coordinator, or as otherwise provided by law.
- In the event that its contract is terminated for a material breach of OAC 123:2-3 through 2-9 the contract or shall become liable for any and all damages which shall accrue to the State Administering Agency and Applicant and the State of Ohio as a result of said breach .
- (8) The contractor will require the inclusion of language reflecting these same eight covenants within every subcontract or purchase order it executes in the performance of its contract unless exempted by rules, regulations or orders of the State Equal Employment Opportunity Coordinator issued pursuant to O .A.C. 123:2-3-02 so that these provisions will be binding upon each subcontractor or vendor. The contractor will

take such actions as the Administering Agency may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in any litigation with a subcontractor, vendor or other party as a result of such direction by the State Administering Agency, the contractor may be requested to protect the interests of the State.

>>> The prime contract bidder hereby adopts the foregoing covenants?  Yes  No

**BIDDER'S CERTIFICATION:**

The undersigned, being a duly authorized officer of the prime contract bidder, does hereby certify to and agree with the foregoing statements and covenants regarding its subscription to the State's Equal Employment Opportunity Requirements for State-assisted Construction Contracts.

David J. Johnson / 10/23/2020  
Signature of Authorized Officer Date  
Vice President  
Title

>>> PLEASE NOTE: Only a bidder possessing a valid certificate will be awarded a contract pursuant to Chapter 153 of the Revised Code by an owner referred to in section 153.01 of the Revised Code. Application shall be made at least ten working days prior to the date that the bidder expects to receive the certificate. The bidder's failure to elect one of the two Bidder's Affirmative Action Requirements, adopt the Bidder's EEO Covenants, and complete the foregoing certification may cause the bidder's proposal to be rejected as being non-responsive to the State's Equal Employment Opportunity Requirements and in non-compliance with the State Equal Employment Opportunity Bid Conditions. In addition, the bidder must, prior to the execution of a contract, submit to the local subdivision a valid Certificate of Compliance for Equal Employment Opportunity purpose.

## **SECTION 3 - CONTRACT FORMS**







NOTICE OF AWARD

TO: KLINGINSMITH ENTERPRISES, INC DATE: JAN 19, 2021

P.O. BOX 5135 - 12984 SPORTSMAN RD  
CONNEAUT LAKE, PA 16316

PROJECT: RUSSTIK DRIVE LIFT PROJECT (SEL 1596)

You are notified that your Bid dated OCTOBER 23, 2020 for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for the RUSSTIK DRIVE LIFT STATION as indicated in the Bid Documents.

The Contract Price of your contract is: \$ 181,517.25

Two (2) sets of the Drawings, Contract Documents and Specifications will be delivered separately after receipt of all required information.

You must comply with the following precedent within fourteen (14) Calendar Days of the date of this Notice of Award, which is by FEB 2, 2021.

1. You must deliver to the Owner four (4) fully executed counterparts of the Agreement including all the Contract Documents.
2. You must also concurrent with the Agreement and Contract Documents deliver to the Owner, Contract Bonds (if applicable), Workers Compensation Certificate, and all Insurance Certificates as specified in the Supplementary Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid in default, to annul this Notice of Award, and to declare your Bid Security forfeited.

Within fourteen (14) days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

ACCEPTANCE OF NOTICE

\_\_\_\_\_  
Contractor

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Daniel Dawson  
Signature

Daniel Dawson  
Name

V.P.  
Title

\_\_\_\_\_  
Owner

[Signature]  
Signature

RICHARD W. MEAD  
Name

VILLAGE ADMINISTRATOR  
Title

cc: Contractor's Surety  
Surety's Agent



NOTICE OF AWARD

TO: KLINGSMITH ENTERPRISES, INC. DATE: NOV. 5 2020  
P.O. BOX 5136 - 12884 SPORTSMAN  
RD. CONNEAUT LAKE, PA 16316

PROJECT RUSSTIK DRIVE LIFT STATION PROJECT (SEL 1596)

You are notified that your Bid dated OCTOBER 23 2020 for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for the RUSSTIK DRIVE LIFT STATION, as indicated in the Bid Documents.

The Contract Price of your contract is: 181,517.25

Two (2) sets of the Drawings, Contract Documents and Specifications will be delivered separately after receipt of all required information.

You must comply with the following precedent within fourteen (14) Calendar Days of the date of this Notice of Award, which is by NOV. 14 2020.

- 1 You must deliver to the Owner four (4) fully executed counterparts of the Agreement including all the Contract Documents
- 2 You must also concurrent with the Agreement and Contract Documents deliver to the Owner: Contract Bonds (if applicable), Workers Compensation Certificate, and all Insurance Certificates as specified in the Supplementary Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid in default, to annul this Notice of Award, and to declare your Bid Security forfeited.

Within fourteen (14) days after you comply with the above conditions Owner will return to you one fully signed counterpart of the Agreement.

You are required to return an acknowledged copy of this Notice of Award to the Owner

ACCEPTANCE OF NOTICE

\_\_\_\_\_  
Contractor

this 6 day of

NOVEMBER 2020

Daniel Dawson  
Signature

Daniel Dawson  
Name

Vice President  
Title

cc: Contractor's Surety  
Surety's Agent

VILLAGE OF ANDOVER

\_\_\_\_\_  
Owner

[Signature]  
Signature

RICHARD W. MEAD  
Name

ADMINISTRATOR  
Title

**KLINGSMITH ENTERPRISES, INC.**  
P.O. BOX 5136 • 12884 Sportsman Rd.  
Conneaut Lake, PA 16316  
Phone (814) 382-4818 Fax (814) 382-2377



## AGREEMENT

THIS AGREEMENT is dated as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_\_\_ by and between

Village of Andover (hereinafter called Owner); Klinginsmith Enterprises Inc. (hereinafter called Contractor) and Ashtabula County Board of Commissioners (hereinafter called CDBG recipient)

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

### ARTICLE 1 - WORK

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

The project involves the construction of a new Sanitary Sewer Lift Station, installation of new 3 inch force main, complete with necessary testing, installation of a new 20kW Diesel Generator, installation of new sanitary manhole, and the installation of new shoulder/access drive.

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Russtik Drive Lift Station Project (SEL1596)

### ARTICLE 2 - ENGINEER

The Project has been designed by Smolen Engineering, Ltd. 1876 State Route 46 North, Jefferson, Ohio 44047 (Engineer), 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.

### ARTICLE 3 - CONTRACT TIME

Bidder agrees that the Work will be substantially complete on or before March 5, 2021 and will be completed and ready for final payment in accordance with Paragraph 14.07.B of the General Conditions on or before March 19, 2021.

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 the paragraph above, plus any extensions thereof allowed in accordance with Article 12 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 \$250 for each day that expires after the time specified in the paragraph above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$250 for each day that expires after the time specified in the paragraph above for completion and readiness for final payment until the Work is completed and ready for final payment.



#### ARTICLE 4 - CONTRACT PRICE

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds of \$ 181,517.25, in accordance with the Bid Form as awarded by the Owner as included herein, subject to additions and deductions by Change Order and quantities actually performed, of which the CDBG recipient is responsible to pay \$109,700.00 of the contracted amount.

#### ARTICLE 5 - PAYMENT PROCEDURES

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

- A. Owner and CDBG recipient shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment each month during performance of the Work as provided in Paragraphs 5.02.A.1 and 5.02.A.2 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed):
  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 Paragraph 14.02 of the General Conditions:
    - a. 92 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
    - b. 92 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
  2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 96 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 10 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.
  3. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.
  4. Upon recommendation of Engineer, Owner will submit payment request along with accompanying prevailing wage documentation, certified payrolls, and site pictures to the CDBG Recipient to pay in accordance with Article 5 pay schedule. Upon submittal of required documentation is received and checked for compliance by CDBG Recipient, payment to the Contractor will be processed.

#### ARTICLE 6 - CONTRACTOR'S REPRESENTATIONS

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

- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. 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.



- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

**ARTICLE 7 - CONTRACT DOCUMENTS**

The Contract Documents which comprise the entire Agreement between Owner and Contractor concerning the Work consists of the following:

- A. This Agreement
- B. Exhibits to this Agreement
- C. Drawings prepared by Smolen Engineering, Ltd. numbered 1 through 11, dated (06-03) June 3, 2020.
- D. Addenda:
  - No. 1, dated October 16, 2020
  - No. 2, dated October 19, 2020
- E. All completed forms including Bidding Forms, Contract Forms as listed in Sections 2 and 3, "Table of Contents".
- F. General Conditions including Supplementary Conditions as listed in Sections 4, "Table of Contents".
- G. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraphs 3.04.A and 3.04.B of the General Conditions.

**ARTICLE 8 - MISCELLANEOUS**

Terms:

- A. The Owner and Contractor agree to hold the Ashtabula County board of Commissioners (CDBG Recipient) harmless from and against claims, damages losses and expense, including but not limited to attorney's fees, arising out of or resulting from negligence or misconduct in relation to the work defined in the contract.



No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, 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 will release or discharge the assignor from any duty or responsibility under the Contract Documents.

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.

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

IN WITNESS WHEREOF, Owner and Contractor have signed 4 copies of this Agreement. One counterpart each has been delivered to Owner and Contractor.

The Effective Date of this Agreement shall be this 12 day of NOVEMBER 2020

OWNER:

VILLAGE OF ANDOVER  
By: RICHARD W. MEAD  
Title: ADMINISTRATOR

[CORPORATE SEAL]

Attest: CATHY WILLIAMS  
Title: FISCAL OFFICER

Address for giving notices:

CONTRACTOR:

Kingsmith Enterprises Inc  
By: Daniel P. Dawson  
Title: Vice President

[CORPORATE SEAL]

Attest: Alma Ferguson  
Title: Secretary

Address for giving notices:

KINGSMITH ENTERPRISES, INC.  
P.O. BOX 5435 • 18004 Spaffman Rd  
Connellsville, PA 15316  
Phone (814) 362-4378 Fax (814) 362-2377

License No.: \_\_\_\_\_  
(Where applicable)

CDBG Recipient: Ashtabula County Board of Commissioners

By: [Signature]  
Title: \_\_\_\_\_

Approved as to legal form:

\_\_\_\_\_  
(Add Name), Village Solicitor



**Legal Review**

**Agreement Title:** CDBG FY19 Andover Critical Infrastructure Russtik Drive Liftstation

A Contract between Klinginsmith Enterprises, Inc., Andover Village and Ashtabula County Commissioners.

The above titled agreement is approved to legal form:



\_\_\_\_\_  
Colleen M. O'Toole, Prosecutor



\_\_\_\_\_  
Date



CERTIFICATE OF FISCAL OFFICER

I, Cathy Williams, duly appointed and acting Fiscal Officer of the Village of Andover, does hereby certify that a copy of the foregoing Contract has been received by me, and that I hereby certify that the amount of \$ 39,000.00 required to meet the payment of this Contract between the Village of Andover and KUNGENSMITH CONSTRUCTION has been lawfully appropriated or authorized or directed for such purpose of complying with the terms and conditions of the foregoing Contract, and is on deposit or in the process of collection to the credit of the appropriate fund and the same is free from any previous encumbrances.

WITNESS MY HAND this 13 day of November, 2020 at \_\_\_\_\_

Cathy Williams  
Cathy Williams, Fiscal Officer



**FISCAL OFFICER'S CERTIFICATE**

5705.41 O.R.C.

The undersigned, County Auditor of Ashtabula County, hereby certifies that the amount required to meet the obligations of the County during the year 2021 under the Agreement has been lawfully appropriated for that purpose, and is in the Treasury of the County or in the process of collection to the credit of:

NWS 2703.511.522-650.0123; not to exceed \$109,700.00

**Agreement Title: CDBG FY 19 Andover Critical Infrastructure Russtik Drive Liftstation**

**Between:** Klinginsmith Enterprises, Inc., Andover Village and Ashtabula County Commissioners



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**David Thomas**  
Ashtabula County Auditor

Date: 1/26/21





Office of Auditor of State  
88 East Broad Street  
Post Office Box 1140  
Columbus, OH 43216-1140

Auditor of State - Unresolved Findings for Recovery Certified Search

(614) 466-4514  
(800) 282-0370

I have searched The Auditor of State's unresolved findings for recovery database using the following criteria:

Contractor's Information:

Name: ,  
Organization: **Klinginsmith Enterprises**  
Date: **1/15/2021 2:56:53 PM**

This search produced the following list of **2** possible matches:

Name/Organization	Address
Franklin, Ralph	15262 State Route 7 South
Strickling, Vivian	11755 Norbourne Dr., Apt. 1001

The above list represents possible matches for the search criteria you entered. Please note that pursuant to ORC 9.24, only the person (which includes an organization) actually named in the finding for recovery is prohibited from being awarded a contract.

If the person you are searching for appears on this list, it means that the person has one or more findings for recovery and is prohibited from being awarded a contract described in ORC 9.24, unless one of the exceptions in that section apply.

If the person you are searching for does not appear on this list, an initialed copy of this page can serve as documentation of your compliance with ORC 9.24(E).

Please note that pursuant to ORC 9.24, it is the responsibility of the public office to verify that a person to whom it plans to award a contract does not appear in the Auditor of State's database. The Auditor of State's office is not responsible for inaccurate search results caused by user error or other circumstances beyond the Auditor of State's control.



**SAM Search Results**  
**List of records matching your search for :**

**Search Term : KLINGINSMITH ENTERPRISES\***  
**Record Status: Active**

**No Search Results**



CONTRACT BOND

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

\_\_\_\_\_

as Principal, and \_\_\_\_\_

as Sureties, are hereby held and firmly bound unto

\_\_\_\_\_ as Oblige

In the penal sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named principal did on the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, enter into a contract with \_\_\_\_\_

\_\_\_\_\_, which said contract is made part of this bond the same as though set forth herein;

Now, if the said \_\_\_\_\_ shall well and faithfully do and perform things agreed by \_\_\_\_\_ to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, material suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any material supplier or laborer having a just claim, as well as for the oblige herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of the said contract or in or to the plans or specifications therefor shall in any wise affect the obligations of said surety on its bond.



IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each one of which shall be deemed an original, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Principal: \_\_\_\_\_

Attest: \_\_\_\_\_ By: \_\_\_\_\_ (SEAL)

(SEAL) \_\_\_\_\_ Name: \_\_\_\_\_

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

Witness as to Principal

Surety: \_\_\_\_\_

Attest:

(SEAL)

\_\_\_\_\_ By: \_\_\_\_\_ (SEAL)  
Witness as to Surety Attorney-In-Fact

Surety Company Address:

Surety Agent's Address:

Street

Agency Name

City State Zip

Street

Telephone

City State Zip

Telephone

Note: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

**IMPORTANT** - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and must not exceed the underwriting limitations.

Surety companies and their agents or attorneys-in-fact must be authorized to transact business in the state where the Project is located and shall furnish proof of such authorization in the Bid.



NOTICE TO PROCEED

TO: KLINGINSMITH ENTERPRISES, INC  
P.O. Box 5135-12984 SPORTSMAN RD  
CONNEAUT LAKE, PA 16316

DATE: JAN 19, 2021

PROJECT: RUSSTIK DRIVE LIFT STATION

You are hereby notified to commence the Work in accordance with the Agreement dated NOVEMBER 17, 2020, on or before FEBRUARY 15, 2021, and you are to complete Work within \_\_\_\_\_ consecutive Calendar Days thereafter. The date of completion of all Work is therefore MAY 3, 2021

You are required to return an acknowledged copy of this Notice to Proceed to the Owner.

ACCEPTANCE OF NOTICE

KLINGINSMITH ENTERPRISES, INC  
Contractor

VILLAGE OF ANDOVER

Owner

this JANUARY 19 day of  
19, 2021

  
Signature

RICHARD W. MEAD

Name

  
Signature

Daniel Dawson  
Name

VILLAGE ADMINISTRATOR  
Title

V.P.  
Title



CHANGE ORDER

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

---

DATE OF ISSUANCE: \_\_\_\_\_ EFFECTIVE DATE: \_\_\_\_\_

---

OWNER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

Contract \_\_\_\_\_

Project \_\_\_\_\_

OWNER's Contract No. \_\_\_\_\_ ENGINEER's Project \_\_\_\_\_

ENGINEER: \_\_\_\_\_

---

You are directed to make the following changes in the Contract Documents:

Description:

Reason for Change Order:

Attachments:



CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES
Original Contract Price \$ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
Net Increase (Decrease) from previous Change Orders No. ____ to ____: \$ _____	Net change from previous Change Orders No. ____ to ____: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
Net increase (decrease) of this Change Order: \$ _____	Net increase (decrease) this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price with all approved Change Orders: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

RECOMMENDED:

APPROVED:

ACCEPTED:

By: \_\_\_\_\_  
ENGINEER (Authorized Signature)

By: \_\_\_\_\_  
OWNER (Authorized Signature)

By: \_\_\_\_\_  
CONTRACTOR (Authorized Signature)

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



## CHANGE ORDER INSTRUCTIONS

---

### A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereof should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

### B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price of two times, cross out the part of the tabulation that does not apply.



# Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

1 Name (as shown on your income tax return). Name is required on this line. do not leave this line blank  
Klingensmith Enterprises Inc.

2 Business name/disregarded entity name (different from above)

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes

Individual/sole proprietor or single-member LLC

C Corporation

S Corporation

Partnership

Trust/estate

Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) \*

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

Other (see instructions) \*

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3)

Exempt payee code (if any) \_\_\_\_\_

Exemption from FATCA reporting code (if any) \_\_\_\_\_

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions  
12984 Sportsman Rd / PO Box 5135

City, state, and ZIP code  
Conneaut Lake, PA 16316

List account number(s) here (optional)

Requester's name and address (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

		-			
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or

Employer identification number

25	-	17	77	525
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**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here

Signature of U.S. person *Alma Ferguson*

Date 01/11/21

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.



**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

## Specific Instructions

### Line 1

You must enter one of the following on this line; do not leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

**a. Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

**Note: ITIN applicant:** Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

**b. Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

**c. Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

**d. Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

**e. Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

### Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

### Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

### Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

#### Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup>	Generally, exempt payees 1 through 5 <sup>2</sup>
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

**Exemption from FATCA reporting code.** The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a) J—

A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

**Note:** You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

## Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

## Line 6

Enter your city, state, and ZIP code.

## Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note:** See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at [www.SSA.gov](http://www.SSA.gov). You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/Businesses](http://www.irs.gov/Businesses) and clicking on Employer Identification Number (EIN) under Starting a Business. Go to [www.irs.gov/Forms](http://www.irs.gov/Forms) to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to [www.irs.gov/OrderForms](http://www.irs.gov/OrderForms) to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note:** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

**Caution:** A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

## Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

**Signature requirements.** Complete the certification as indicated in items 1 through 5 below.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

### What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup>
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
5. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee <sup>1</sup> The actual owner <sup>1</sup>
6. Sole proprietorship or disregarded entity owned by an individual	The owner <sup>3</sup>
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor <sup>4</sup>
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity <sup>4</sup>
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

\*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

### Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

**Protect yourself from suspicious emails or phishing schemes.** Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at [spam@uce.gov](mailto:spam@uce.gov) or report them at [www.ftc.gov/complaint](http://www.ftc.gov/complaint). You can contact the FTC at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see [www.IdentityTheft.gov](http://www.IdentityTheft.gov) and Pub. 5027.

Visit [www.irs.gov/IdentityTheft](http://www.irs.gov/IdentityTheft) to learn more about identity theft and how to reduce your risk.

## Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

**Document 00 43 13 - Bid Security Form**  
**State of Ohio Standard Requirements for Public Facility Construction**

( Form of combined Bid Guaranty and Bond prescribed by Ohio Revised Code Section 153.571 )

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned \_\_\_\_\_  
Klinginsmith Enterprises, Inc. \_\_\_\_\_, as Principal,  
and **Old Republic Surety Company** \_\_\_\_\_ as Sureties,  
are hereby held and firmly bound unto Village of Andover

\_\_\_\_\_ as Obligee(s), in the penal sum of the dollar amount of the Bid submitted by the Principal  
to the Obligee on October 23, 2020 (date) to undertake the Project known as:

Project Number: \_\_\_\_\_  
Project Name: Russtik Drive Lift Station Project  
Contract Description: Site Work  
(e.g., General Trades, Plumbing, HVAC, Electrical)

The penal sum, referred to herein, shall be the dollar amount of the Principal's Bid to the Obligee, incorporating any additive alternate Bids made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of dollars (\$ \_\_\_\_\_). (If the preceding line is left blank, the penal sum will be the full amount of the Principal's Bid, including add alternates. Alternatively, if completed, the amount stated shall not be less than the full amount of the Bid, including Alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a Bid for the above referenced Project;

NOW, THEREFORE, if the Obligee accepts the Bid of the Principal, and the Principal fails to enter into a proper contract in accordance with the Bid, Plans, Specifications, details, and bills of material; and in the event the Principal pays to the Obligee the difference, not to exceed ten percent of the penal sum hereof between the amount specified in the Bid and such larger amount for which the Obligee may in good faith contract with the Bidder determined by the Obligee to be the next lowest responsive and responsible to perform the Work covered by the Bid; or in the event the Obligee does not award the Contract to such next lowest responsive and responsible Bidder and resubmits the Project for bidding, the Principal pays to the Obligee the difference not to exceed ten percent of the penal sum hereof between the amount specified in the Bid, or the costs, in connection with the resubmission, of printing new Contract Documents, required advertising and printing and mailing notices to prospective Bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect. If the Obligee accepts the Bid of the Principal, and the Principal, within 10 days after the awarding of the Contract, enters into a proper contract and executes the Agreement Form in accordance with the Contract Documents, including without limitation the Bid, Plans, Specifications, details, and bills of material, which said Contract is made a part of this Bond the same as though set forth herein; and

NOW ALSO, IF THE SAID Principal shall well and faithfully perform each and every condition of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such Contract according to the provisions thereof and in accordance with the Contract Documents, including without limitation Plans, Specifications, details, and bills of material therefore; and shall pay all lawful claims of Subcontractors, Material Suppliers and laborers for labor performed and materials furnished in the carrying forward, performing or completing of said Contract; we, agreeing and assenting that this undertaking shall be for the benefit of any Subcontractor, Material Suppliers or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being



expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said Contract, the Work thereunder or the Contract Documents, including without limitation the Plans and Specifications, therefore, shall in any way affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions in or to the terms of the Contract, the Work, or the Contract Documents, including without limitation the Plans and Specifications.

SIGNED AND SEALED this 23rd day of October, 2020

**PRINCIPAL:**

Klingensmith Enterprises, Inc.

By: *David Dawson*

Title: V. President

**SURETY:**

Old Republic Surety Company

By: *Russell W. Gibson*

Attorney-in-Fact  
Russell W. Gibson

**SURETY INFORMATION:**

445 S. Moorland Road, Suite 200

Street

Brookfield WI 53005

City State Zip

(262) 797-2640

Telephone Number

**SURETY AGENT'S INFORMATION:**

Penn Western Bonding, LLC

Agency Name

285 Pine Creek Road

Street

Wexford PA 15090

City State Zip

(888) 974-7775

Telephone Number

**END OF DOCUMENT**





# OLD REPUBLIC SURETY COMPANY

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint: **RUSSELL W. GIBSON of WEXFORD, PA**

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, asbestos abatement contract bonds, waste management bonds, hazardous waste remediation bonds or black lung bonds), as follows:

### ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that, the president, any vice-president or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

- (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary, or
- (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or
- (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 21st day of November, 2019.

Assistant Secretary



OLD REPUBLIC SURETY COMPANY

President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 21st day of November, 2019, personally came before me, Alan Pavlic and Kevin Abitz, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Notary Public

My Commission Expires: September 28, 2022

(Expiration of notary's commission does not invalidate this instrument)

### CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

72-6616



Signed and sealed at the City of Brookfield, WI this 23rd day of October, 2020.

Assistant Secretary



Office of Risk Assessment  
50 West Town Street  
Third Floor - Suite 300  
Columbus, Ohio 43215  
(614)644-2658  
Fax(614)644-3256  
www.insurance.ohio.gov

**Ohio Department of Insurance**

Mike DeWine - Governor

Jillian Froment - Director

**Certificate of Compliance**



Issued 03/10/2020

Effective 04/02/2020

Expires 04/01/2021

I, Jillian Froment, hereby certify that I am the Director of Insurance in the State of Ohio and have supervision of insurance business in said State and as such I hereby certify that

**OLD REPUBLIC SURETY COMPANY**

of Wisconsin is duly organized under the laws of this State and is authorized to transact the business of insurance under the following section(s) of the Ohio Revised Code:

**Section 3929.01 (A)**

Fidelity

Other Liability

Surety

**OLD REPUBLIC SURETY COMPANY** certified in its annual statement to this Department as of December 31, 2019 that it has admitted assets in the amount of \$142,866,356, liabilities in the amount of \$63,893,145, and surplus of at least \$78,973,211.

IN WITNESS WHEREOF, I have hereunto subscribed my name and caused my seal to be affixed at Columbus, Ohio, this day and date.

Handwritten signature of Jillian Froment in cursive.

Jillian Froment, Director





OLD REPUBLIC SURETY COMPANY  
OF BROOKFIELD, WISCONSIN

STATUTORY FINANCIAL STATEMENT AS OF DECEMBER 31, 2019

ADMITTED ASSETS

Bonds	\$85,044,487
Common stocks	49,894,553
Cash and cash equivalents	2,035,927
Premiums and agents' balances in course of collection (not over 90 days)	3,930,165
Amounts recoverable from reinsurers	271,089
Investment income due and accrued	771,760
Receivables from parent, subsidiaries and affiliates	918,355
<b>TOTAL ADMITTED ASSETS</b>	<b>\$142,866,356</b>

LIABILITIES AND SURPLUS

Losses	\$11,506,379
Loss adjustment expenses	6,219,961
Commissions payable, contingent commissions and other similar charges	2,982,972
Other expenses (excluding taxes, licenses and fees)	4,060,586
Taxes, licenses and fees (excluding federal income taxes)	610,631
Current federal income taxes	900,015
Net deferred tax liability	83,105
Unearned premiums	38,420,063
Advance premium	414,886
Ceded reinsurance premiums payable (net of ceding commissions)	1,322,452
Amounts withheld or retained by company for account of others	10,102
Drafts outstanding	115,904
Payable to parent, subsidiaries and affiliates	136
Other liabilities	25,953
<b>TOTAL LIABILITIES</b>	<b>\$63,893,145</b>
Common capital stock	2,900,000
Gross paid in and contributed surplus	16,534,036
Unassigned funds (surplus)	59,539,175
<b>SURPLUS AS REGARDS POLICYHOLDERS</b>	<b>\$78,973,211</b>
<b>TOTAL LIABILITIES AND SURPLUS</b>	<b>\$142,866,356</b>

Securities carried at \$3,303,543 are deposited with States or Other Authorities as required by law.

STATE OF WISCONSIN )  
                                  )SS  
COUNTY OF WAUKESHA)

Alan P. Pavlic, President/Chief Operating Officer, and Karen J. Haffner, Treasurer/SVP of Old Republic Surety Company of Brookfield, Wisconsin being duly sworn, each for himself, deposes and says that they are the above described officers of the said company, and that on the 31st day of December, 2019, the company was actually possessed of the assets set forth in the foregoing statement and that such assets were available for the payment of losses and claims and held for the protection of its policyholders and creditors, except as herein-before indicated, and that the foregoing statement is a correct exhibit of such assets and liabilities of the said company on the 31st day of December, 2019, according to the best of their information, knowledge and belief, respectively.

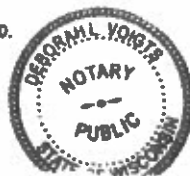
Alan P. Pavlic, President/COO

Karen J. Haffner, Treasurer/SVP

Sworn to and subscribed before me this 12th day of March, 2020.

Notary Public, State of Wisconsin

My Commission expires: July 31, 2023







**Bureau of Workers' Compensation**

30 W. Spring St.  
Columbus, OH 43215

### Certificate of Ohio Workers' Compensation

This certifies that the employer listed below participates in the Ohio State Insurance Fund as required by law. Therefore, the employer is entitled to the rights and benefits of the fund for the period specified. This certificate is only valid if premiums and assessments, including installments, are paid by the applicable due date. To verify coverage, visit [www.bwc.ohio.gov](http://www.bwc.ohio.gov), or call 1-800-644-6292.

This certificate must be conspicuously posted.

Policy number and employer  
80057132

Period Specified Below  
07/01/2020 to 07/01/2021

Klingensmith Enterprises Inc  
PO BOX 5135  
CONNEAUT LAKE, PA 16316-5135



[www.bwc.ohio.gov](http://www.bwc.ohio.gov)  
Issued by: BWC

*Stephanie McCloud*

Administrator/CEO

You can reproduce this certificate as needed.

### Ohio Bureau of Workers' Compensation

#### Required Posting

Section 4123.54 of the Ohio Revised Code requires notice of rebuttable presumption. Rebuttable presumption means an employee may dispute or prove untrue the presumption (or belief) that alcohol, marihuana or a controlled substance not prescribed by the employee's physician is the proximate cause (main reason) of the work-related injury.

The burden of proof is on the employee to prove the presence of alcohol, marihuana or a controlled substance was not the proximate cause of the work-related injury. An employee who tests positive or refuses to submit to chemical testing may be disqualified for compensation and benefits under the Workers' Compensation Act.



**Bureau of Workers' Compensation**

You must post this language with the Certificate of Ohio Workers' Compensation



## **SECTION 4 - CONDITIONS OF THE CONTRACT**

**Community Development Block Grant (CDBG)  
Supplemental Conditions**

If any of the following conditions are addressed in other sections of the bid/contract documents, the more stringent of the requirements will be enforced.

1. **Breach of Contract Terms.** Any violation or breach of terms of this contract on the part of the Contractor may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this contract. The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
2. **Termination of Contract for Cause.** If, through any cause, the Contractor shall fail to fulfill in timely and proper manner his obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the Community shall thereupon have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under this Contract shall, at the option of the Community, become its property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

Notwithstanding the above, the Contractor shall not be relieved of liability to the Community for damages sustained by the Community by virtue of any breach of the Contract by the Contractor, and the Community may withhold any payment to the Contractor for the purpose of set-off until such time as the exact amount of damages due the Community from the Contractor is determined.

3. **Termination for Convenience.** The Community may terminate this Contract at any time giving at least ten (10) days notice in writing to the Contractor. If the Contract is terminated by the Community as provided herein, the Contractor will be paid for the time provided and expenses incurred up to the termination date. If this Contract is terminated due to the fault of the Contractor, Paragraph 1 hereof relative to termination shall apply.
4. **Equal Employment Opportunity.** During the performance of this Contract, the Contractor agrees as follows:
  - a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, sex, color, age, familial status, handicap, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, sex, color, age, familial status, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Community setting forth the provision of this non-discrimination clause.
  - b. The Contractor will, in all solicitation or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment with regard to race, creed, sex, color, age, familial status, handicap, or national origin.
  - c. The Contractor will cause the foregoing provisions inserted in all subcontracts for any work covered by this Contract so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontract for standard commercial supplies or raw materials.
  - d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

- e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Community's Department of Housing and Community Development and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
  - f. In the event of the Contractor's non-compliance with the non-compliance clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for future Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
  - g. The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Community's Department of Housing and Community Development may direct as a means of enforcing such provisions including sanctions for non-compliance, provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Community's Department of Housing and Community Development, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.
5. Civil Rights Act of 1988, as Amended. Under Title VI of the Civil Rights Act, as amended, no person shall, on the grounds of race, color, creed, sex, familial status, handicap, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.
6. Section 109 of the Housing and Community Development Act, as Amended. No person in the United States shall on the grounds of race, color, national origin, familial status, handicap, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.
7. Section 3 Compliance in the Provision of Training, Employment, and Business Opportunities.
- a. The work to be performed under this contract is on a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of Section 3 of the Housing and Community Development Act, as amended, Section 3 requires that to the greatest extent feasible opportunities for training and employment be given to lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the area of the project.
  - b. The parties of this contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued thereunder prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.
  - c. The contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement or other contract or understanding, if any, a notice advising the said labor organization or worker's representative of his commitments under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.

- d. The contractor will include this Section 3 clause in every subcontract for work in connection with the project and will, at the direction of the applicant for or recipient of Federal financial assistance, take appropriate action pursuant to the subcontract upon a finding that the subcontractor is in violation of regulations issued by the Secretary of Housing and Urban Development, 24 CFR Part 135. The contractor will not subcontract with any subcontractor where it has notice or knowledge that the latter has been found in violation of regulations under 24 CFR Part 135 and will not let any subcontract unless the subcontractor has first provided it with a preliminary statement of ability to comply with the requirements of these regulations.
  - e. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued hereunder prior to the execution of the contract, shall be a condition of the federal financial assistance provided to the project, binding upon its successors and assigns. Failure to fulfill these requirements shall subject the applicant or recipient, its contractors, and subcontractors, its successors and assigns to those sanctions specified by the grant or loan agreement or contract through which Federal assistance is provided, and to such sanctions as are specified by 24 CFR Part 135
8. Compliance with the Copeland Act. The Contractor shall comply with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR part 3).
  9. Compliance with the Davis-Bacon Act. The Contractor shall comply with the Davis-Bacon Act the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 CFR part 5).
  10. Compliance with §103 and §107 of the Contract Work Hours and Safety Standards Act.
    - a. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek
    - b. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (a) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States, for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph a of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in subparagraph a of this section.
    - c. Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act with is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph b of this section.
    - d. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraphs a through d of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs a through d of this section.
  11. Reports and Information. The Contractor, at such times and in such forms as the Community may require, shall furnish the Community such periodic reports as it may request pertaining to the work or services

undertaken pursuant to this Contract, the costs and obligations incurred or to be incurred in connection therewith, and any other matters covered by this Contract.

12. Patent Rights. No discovery or patent rights arising from any discovery or invention which arises or is developed in the course of or under this contract shall be exercised by or on behalf of the contractor.
13. Copyright. No report, maps, or other documents produced in whole or in part under this Contract shall be subject of an application for copyright by or on behalf of the Contractor.
14. Access to Records. The State of Ohio, the Department of Housing and Urban Development, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the Contractor which are directly pertinent to this specific contract, for the purpose of audits, examinations, and making excerpts and transcriptions.
15. Records and Audits. The Contractor shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the Community to assure proper accounting for all project funds, both Federal and non-Federal shares. These records will be made available for audit purposes to the Community or any authorized representative, and will be retained for three years after the expiration of this Contract unless permission to destroy them is granted by the Community.
16. Compliance with §306 of the Clean Air Act and §508 of the Clean Water Act. The Contractor shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC 1857 (H)), Section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR, Part 15) prohibiting the use of facilities included on the EPA List of Violating Facilities.
17. Energy Efficiency. The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).
18. Compliance with Local Laws. The Contractor shall comply with all applicable laws, ordinances, and coded of the State and Local governments, and the Contractor shall save the Community harmless with respect to any damages arising from any tort done in performing any of the work embraced by this Contract.
19. Interest of Member of the Governing Body. No member of the governing body of the Community and no other officer, employee, or agent of the Community who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial interest, direct or indirect, in this Contract; and the Contractor shall take appropriate steps to assure compliance.
20. Interest of Other Local Public Officials. No member of the governing body of the locality and no other public official of such locality, who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial interest, direct, or indirect, in this Contract; and the Contractor shall take appropriate steps to assure compliance.
21. Interest of Contractor and Employees. The Contractor covenants that he presently has no interest and shall not acquire interest, direct, or indirect, in the study area or any parcels therein or any other interest which would conflict in any manner or degree with performance of his services hereunder. The Contractor further covenants that in the performance of this Contract, no person having any such interest shall be employed.
22. Changes.
  - a. The Community may, from time to time, request changes in the scope of the services of the Contractor to be performed hereunder. Such changes, including any increase or decrease in the amount of the Contractor's compensation, which are mutually agreed upon by between the Community and the Contractor, shall be incorporated in written amendment to this Contract.
  - b. Change orders must be prepared by the construction inspector and/or architect/engineer. The locality must approve and authorize change orders before they are given to the contractor.

23. Personnel.
- a. The Contractor represents that he has, or will secure at his expense, all personnel required in performing the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the Community.
  - b. All of the services required hereunder will be performed by the Contractor or under his supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and Local law to perform such services.
  - c. None of the work or services covered by this Contract shall be subcontracted without the prior written approval of the Community. Any work or services subcontracted hereunder shall be specified by written contract or agreement and shall be subject to each provision of this Contract.
24. Assignability. The Contractor shall not assign any interest on this Contract, and shall not transfer any interest in the same, without the prior written consent of the Community thereto: Provided, however, that claims for money by the Contractor from the Community under this Contract may be assigned to a bank, trust company, or other financial institution without such approval. Written notice of any such assignment or transfer shall be furnished promptly to the Community.
25. Supervision. The Contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, 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 or 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 a binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.
26. Claims Against Contractor. The Contractor shall indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractor's laborers, workmen, mechanics, material persons, and furnishers 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 fail 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, his 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 in good faith.
27. Subcontracting.
- a. Neither the Contractor nor the Owner shall sell, transfer, assign, or otherwise dispose of his right, title, or interest therein, or his obligations thereunder.
  - b. The Contractor shall not sublet, sell, transfer or assign any portion of the contract without written consent of the Owner or his/her designated agent. When such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his/her own organization, work amounting to no less than fifty percent of the total contract cost, except that any item designated in the contract before computing the amount of work required to be performed by the Contractor with his/her own organization. No subcontract, or transfer of contract, shall in any way release the Contractor of his/her liability under the contract and bonds.
  - c. The Contractor shall not award work to Subcontractor(s) without prior written approval of the Owner, after verification by Ashtabula County of the subcontractor's current eligibility status, and after submission of all certifications as required. The Contractor shall be fully responsible to the Owner for the acts and omissions of the subcontractor(s), and of persons either directly or indirectly employed by

them, as he is for the acts and omissions of persons directly employed by him.

28. Time.

- a. The date of beginning and the time for completion of the work are essential conditions of the Contract Documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.
- b. The Contractor will proceed with the work at such rate of progress to ensure full completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

29. Completion of Work.

- a. The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one year from the date of Substantial Completion. The Contractor warrants and guarantees for a period of one year from the date of Substantial Completion of the improvement that it is free from all defects due to faulty materials or workmanship, and the Contractor shall promptly make corrections as may be necessary by reason of such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make repairs, adjustments, or other work which may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Contract Bond shall remain in full force and effect through the guarantee period.
- b. When the work, including that performed by Subcontractors, is completed, the site shall be cleaned of all rubbish and debris caused by the construction. All sheds or other temporary structures, surplus materials, and equipment shall be removed and the project left in a neat and presentable condition.

30. Insurance.

- a. The Contractor shall not commence work under this Contract until he has obtained all the insurance required hereunder and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.
- b. The Contractor shall file with the Owner all Certificate(s) of Insurance as are necessary to document the insurance coverage required hereunder, subject to the approval of the Owner and receipt of any additional forms/documentation requested, prior to final execution of the Agreement Contract and issuance of the Notice to Proceed.
- c. **Worker's Compensation**  
All contractors and subcontractors shall acquire and maintain, during the term of the Contract, Worker's Compensation insurance in full compliance with the laws of the state of Ohio.
- d. **Contractor's Liability Insurance**
  - i. The Contractor shall acquire and maintain during the term of the Contract Bodily Injury and Property Damage Liability Insurance under a standard Comprehensive General/Automobile Liability Policy which shall provide and include coverage on all Contractor's Operations, Contractor's Protective (Sublet) Liability, Contractual Liability, Completed Operations Liability, Owned Automobiles and Non-owned and Hired Automobiles.
  - ii. Property Damage Liability Insurance shall be provided on any demolition, blasting, excavating, shoring or similar operation on an "if any" basis.
  - iii. Bodily Injury Liability limits shall be for an amount of no less than Two Hundred Fifty

- Thousand (\$250,000) Dollars for injuries, including wrongful death to any one person and subject to the same limit for each person, in an amount of not less than Five Hundred Thousand (\$500,000) Dollars on the account of any one occurrence.
- iv. Property Damage Liability insurance shall be in an amount of not less than One Hundred Thousand (\$100,000) per occurrence. General Liability shall be extended to provide "Broad Form Property Damage Liability," and in an amount of not less than One Million (\$1,000,000) Dollars aggregate for damage on account of all occurrences.
  - v. Any combination of underlying Comprehensive General/Automobile Liability coverage with Umbrella/Excess Liability coverage which provides no less than One Million (\$1,000,000) Dollars Single Limit Bodily Injury and Property Damage Liability Insurance for the Contractor will also be acceptable.
  - vi. The Owner may adjust the liability limits to coincide with local government procurement policies and practice within the limits of state and local law.
- e. The Policies as listed above shall all contain all the following special provisions:
- i. "The Company agrees that thirty (30) days prior to cancellation or reduction of the insurance afforded by this policy with respect to the Contract involved, written notice will be mailed to \_\_\_\_\_ (the contract owner)."
  - ii. The maintaining of such insurance as outlined herein shall in no way constitute a waiver of legal liability for damage to any adjoining buildings or their contents or the work and property of others on the site beyond the limits of insurance thus maintained. The Contractor shall hold the Owner free and harmless from any injury and damage resulting from the negligent or faulty performance of the Contract by the Contractor or by his/her Subcontractors.
  - iii. Each Contractor shall hold the Owner harmless from all payments for patents, either as royalty or otherwise, in the use of materials, methods, appliances, etc., that he may be in any way involved in or connected with any part of his work or the work of his Subcontractors.
  - iv. Prior to commencement of any work under Contract, the Contractor shall furnish one (1) copy of Declaration of Insurance as evidence of coverage.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

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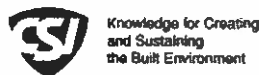
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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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## GENERAL CONDITIONS

### ARTICLE I - DEFINITIONS AND TERMINOLOGY

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#### 1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division I of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain

administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times

but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 Terminology

1. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

### 2. Intent of Certain Terms or Adjectives

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

### 3. Day

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

### 4. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

- a. does not conform to the Contract Documents, or
- b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
- c. has been damaged prior to Engineer's - recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

## 5. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

6. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 - PRELIMINARY MATTERS

### 2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### 2.02 *Copies of Documents*

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

### 2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement

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

### 2.04 *Starting the Work*

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

### 2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

A. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

B. a preliminary Schedule of Submittals; and

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

### 2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

### 2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

A. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

B. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

C. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

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#### 3.01 Intent

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### 3.02 Reference Standards

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or

responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

#### 3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work

(unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's

sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

### 4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

*A. Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

#### *B. Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will

promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *Reference Points*

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

#### 4.06 *Hazardous Environmental Condition at Site*

*A. Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

*B. Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to

entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 - BONDS AND INSURANCE

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### 5.01 Performance, Payment, and Other Bonds

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified

in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

#### 5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

#### 5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

#### 5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection

from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any

deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### *5.07 Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

#### *5.08 Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

#### *5.09 Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract

Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

#### 5.10 *Partial Utilization. Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

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#### 6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or

received from the superintendent shall be binding on Contractor.

#### 6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

#### 6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

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

#### 6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

#### 2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

**B. Substitute Construction Methods or Procedures:** If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

**C. Engineer's Evaluation:** Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

**D. Special Guarantee:** Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

**E. Engineer's Cost Reimbursement:** Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract

Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

**F. Contractor's Expense:** Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### *6.06 Concerning Subcontractors, Suppliers, and Others*

**A.** Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

**B.** If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

**C.** Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual

or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

## 6.10 Taxes

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

## 6.11 Use of Site and Other Areas

### A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

**B. Removal of Debris During Performance of the Work:** During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

**C. Cleaning:** Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

**D. Loading Structures:** Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

## 6.12 Record Documents

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

## 6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Draw-

ings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 Safety Representative

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

#### 6.15 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 6.16 Emergencies

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

#### 6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

##### 1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

##### C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

#### *D. Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

#### *E. Resubmittal Procedures*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

#### *6.18 Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or

disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

#### *6.19 Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

#### *6.20 Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal

shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 - OTHER WORK AT THE SITE

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### 7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and

properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

#### 7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

## ARTICLE 8 - OWNER'S RESPONSIBILITIES

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### 8.01 *Communications to Contractor*

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

### 8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

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

### 8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

### 8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

### 8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

### 8.09 *Limitations on Owner's Responsibilities*

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

### 8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

### 8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

## ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

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### 9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

### 9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep

Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

### 9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

### 9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

*9.06 Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

*9.07 Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show

partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

*9.09 Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

**ARTICLE 10 - CHANGES IN THE WORK; CLAIMS**

*10.01 Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall

promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

#### 10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

A. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

B. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

C. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

#### 10.04 *Notification to Surety*

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

#### 10.05 *Claims*

A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,
2. approve the Claim, or
3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

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### 11.01 Cost of the Work

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and

Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have

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

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

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

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

**C. Contractor's Fee:** When all the Work is performed on the basis of cost-plus, Contractor's fee shall

be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

**D. Documentation:** Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

### 11.02 Allowances

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

#### B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

#### C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

### 11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

### 12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an

allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

### 12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted

by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

### 12.03 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

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### 13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### 13.02 Access to Work

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

### 13.03 Tests and Inspections

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to

be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### *13.04 Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### *13.05 Owner May Stop the Work*

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

#### *13.06 Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

#### *13.07 Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

### *13.08 Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

### *13.09 Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

### *14.01 Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

#### 14.02 Progress Payments

##### A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

##### B. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent

inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

#### *C. Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

#### *D. Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

- a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
- b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
- c. there are other items entitling Owner to a set-off against the amount recommended; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

#### *14.03 Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### *14.04 Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial

Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

#### 14.05 Partial Utilization

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals

that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 Final Payment

##### A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

##### B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

#### C. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

#### 14.08 Final Completion Delayed

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

A. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

B. a waiver of all Claims by Contractor against Owner other than those previously made in accordance

with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

## ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

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### 15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

### 15.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

#### *15.03 Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### *15.04 Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## ARTICLE 16 - DISPUTE RESOLUTION

### *16.01 Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be

governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 - MISCELLANEOUS

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### *17.01 Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### *17.02 Computation of Times*

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

### *17.03 Cumulative Remedies*

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

### *17.04 Survival of Obligations*

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

### *17.05 Controlling Law*

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

### *17.06 Headings*

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

## SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

### SC-1

The definitions and terminology used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2002 Edition) have the meanings assigned to them in the General Conditions.

#### 1.01.17 Drawings

Add the following sentence to the definition: "Drawings may also be described as Plans."

### SC-2.01 Delivery of Bonds and Evidence of Insurance

Delete Paragraph 2.01.B of the General Conditions in its entirety and insert the following in its place:

- A. Before any Work at the site is started, Contractor shall deliver to the Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which the Owner or any additional insured may reasonably request) which the Contractor is required to purchase and maintain in accordance with Article 5.

### SC-2.02 Copies of Documents

Delete Paragraph 2.02.A of the General Conditions in its entirety and insert the following in its place:

- A. The Owner shall furnish the Contractor up to four (4) copies of Contract Documents without charge. Additional sets will be furnished upon request at the cost of reproduction. The Contractor shall keep at least one (1) set of approved plans and specifications on the site of the Work. This set shall be kept current by addition of all approved changes, addenda, and amendments thereto. One set of as-built plans shall be returned to the Owner after the project is complete.

### SC-2.03 Commencement of Contract Times; Notice to Proceed

Delete Paragraph 2.03.A in its entirety and add the following in its place:

- A. The Contract Time will commence to run on the Effective Date of the Agreement.

### SC-3.02 Reference Standards

Add the following new paragraph immediately after Paragraph 3.02.A.1 of the General Conditions:

- a. All applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

#### **SC-4.02 Subsurface and Physical Conditions**

Delete Paragraph 4.02 of the General Conditions in its entirety and insert the following in its place:

A. Reports and Drawings: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents and they are included in the Appendix of the Contract Documents. These reports and tests are not Contract Documents and are to be considered "technical data."
2. Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:
  - a. The completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
  - b. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  - c. Any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

#### **SC-4.03 Differing Subsurface or Physical Conditions**

Delete Paragraph 4.03 of the General Conditions in its entirety and insert the following in its place:

- A. Notice: If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:
1. Is of such nature as to require a change in the Contract Documents; or
  2. Differs materially from that shown or indicated in the Contract Drawings, or
  3. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent on work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any work in connection therewith (except in an emergency as required by paragraph 6.16A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any work in connection therewith (except as aforesaid) until receipt of written order to do so.

#### **SC-4.04 Underground Facilities**

Add the following new paragraph immediately after Paragraph 4.04.A.2.d of the General Conditions.

3. The location of subsurface utilities is shown on the plans from information furnished by the utility owner's pursuant to ORC §153.64. The Contractor shall, at least two (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 marking or locating shall be coordinated to stay approximately two (2) days ahead of the planned construction. The Contractor shall alert immediately the occupants of nearby premises as to any emergency that he may create or discover at or near such premises. The Contractor shall have full responsibility for coordination of the work with owner's of such underground facilities during construction, for the safety and protection thereof as provided in paragraph 6.13 and repairing any damage thereto resulting from the work, the cost of all of which will be considered as having been included in the Contract Price, unless otherwise provided for in the Ohio Revised Code.

#### **SC-5.01 Performance, Payment, and Other Bonds**

Delete Paragraph 5.01.A of the General Conditions in its entirety and insert the following in its place:

- A. Simultaneously with his/her delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner. The bond shall be for 100 percent of the contract price. A Payment Bond and Performance Bond are required. Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney. Under certain conditions, and within the limits of State and local laws and regulations, the Owner may waive the requirement that the Payment and Performance Bond be underwritten by a surety company and may authorize in lieu thereof, a personal bond backed by a letter of credit from a local lending institution for the full value of the Contract.

#### **SC-5.02 Licensed Sureties and Insurers**

Add the following new paragraph immediately after Paragraph 5.02.A. of the General Conditions.

- B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department.

#### **SC-5.03 Certificates of Insurance**

Delete Paragraph 5.03.A of the General Conditions in its entirety and insert the following in its place:

- A. The Contractor shall not commence work under this Contract until he has obtained all the insurance required hereunder and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.

Delete Paragraph 5.03.B of the General Conditions in its entirety and insert the following in its place:

- B. The Contractor shall file with the Owner all Certificate(s) of Insurance as are necessary to document the insurance coverage required hereunder, subject to the approval of the Owner and receipt of any additional forms/documentation requested, prior to final execution of the Agreement Contract and issuance of the Notice to Proceed.

#### SC-5.04 Contractor's Liability Insurance

Add the following new paragraph immediately after Paragraph 5.04.B of the General Conditions.

- C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Worker's Compensation and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions.
 

(a) State:	Statutory
(b) Applicable Federal:	Statutory
(c) Employer's Liability	\$1,000,000.00
  
2. Comprehensive General Liability Insurance under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of Contractor:
 

(a) General Aggregate: (except Products-Completed Operations)	\$ 1,000,000.00
(b) Products-Completed Operations Aggregate:	\$1,000,000.00
(c) Personal and Advertising Injury: (Per Person/Organization)	\$ 1,000,000.00
(d) Each Occurrence: Bodily Injury and Property Damage	\$ 1,000,000.00
(e) Property Damage Liability Insurance will provide Explosion, Collapse, and Underground Coverages, where applicable	
(f) Excess Liability	
General Aggregate:	\$ 1,000,000.00
Each Occurrence:	\$ 1,000,000.00

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions

(a) Bodily Injury:  
Each Person: \$ 250,000.00  
Each Occurrence: \$ 500,000.00

(b) Property Damage  
(Each Accident) \$ 100,000.00

or

(c) Combined Single Limit (Bodily Injury  
and Property Damage)  
Each Accident \$ 1,000,000.00

4. The Contractual Liability coverage required by paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

(a) Bodily Injury:  
Each Accident: \$ 1,000,000.00  
Annual Aggregate: \$ 1,000,000.00

(b) Property Damage  
Each Accident: \$ 1,000,000.00  
Annual Aggregate: \$ 1,000,000.00

Delete Paragraph 5.04.A.5 of the General Conditions in its entirety and insert the following in its place:

5. Each Contractor shall maintain insurance to protect himself and the Owner, jointly, from loss incurred by fire, lightning, extended coverage hazards, vandalism, theft, explosion and malicious mischief in the full amount of the Contract and such insurance shall cover all labor and material connected with the work, including materials delivered to the site, but not yet installed.

1. "The Company agrees that thirty (30) days prior to cancellation or reduction of the insurance afforded by this policy with respect to the Contract involved, written notice will be mailed to the Owner"

2. The maintaining of such insurance as outlined herein shall in no way constitute a waiver of legal liability for damage to any adjoining buildings or their contents or the work and property of others on the site beyond the limits of insurance thus maintained. The Contractor shall hold the Owner free and harmless from any injury and damage resulting from the negligent or faulty performance of the Contract by the Contractor or by his/her Subcontractors.

3. Each Contractor shall hold the Owner harmless from all payments for patents, either as royalty or otherwise, in the use of materials, methods, appliances, etc., that he may be in any way involved in or connected with any part of his work or the work of his Subcontractors.

4. Prior to commencement of any work under Contract, the Contractor shall furnish one (1) copy of Declaration of Insurance as evidence of coverage.

### SC-6.01 Supervision and Superintendence

Delete Paragraphs 6.01.A and 6.01.B of the General Conditions in its entirety and insert the following in its place:

- A. The Contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, 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 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.
- B. The Owner and its 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.
- C. The Contractor shall submit a proposed program of operation, showing clearly how he/she proposed to conduct the work as to bring about the completion of his/her work within the time limit specified. This program shall outline the proposed sequence of operations, the rates of progress, and the dates when his/her work will be sufficiently advanced to permit the installation of the work under other contracts, and the estimated progress payments due under the Contract. The work under this contract shall be so scheduled that as structures are completed, they can be placed into useful operation with a minimum of delay. The program shall be subject to the approval of the Owner.
- D. All construction as proposed along all Village, Township, County, State and Federal roads including storage and stockpiling of materials, is to be conducted within the limits of the public right-of-way. Bracing, sheeting and shoring shall be used to keep all construction work within the construction limits unless work agreements are secured from the adjacent property owners. It is the Contractor's responsibility to secure these work agreements, if deemed necessary. Copies of the work agreements shall be delivered to the Engineer and the Owner prior to any work beginning on the affected property.

### SC-6.02 Labor: Working Hours

Add the following new paragraphs immediately following Paragraph 6.02.B:

- C. No WORK shall be done between 7:00 P.M. and 8:00 A.M. without permission of Owner. However, Emergency Work may be done without prior permission.
- D. Night Work may be undertaken as a regular procedure with the permission of Owner; such permission, however, may be revoked at any time by Owner if Contractor fails to maintain adequate equipment and supervision for the proper prosecution and control of the Work at night.

#### SC-6.08 Permits

Delete Paragraph 6.08.A of the General Conditions in its entirety and insert the following in its place:

- A. The Contractor is responsible for obtaining and paying for all necessary permits and licenses from the proper authorities. 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, he/she shall promptly notify the Owner in writing.

#### SC-6.09 Laws and Regulations

Add the following paragraphs after Paragraph 6.09.B of the General Conditions.

- C. If Contractor observes that the specifications or drawings are at a variance with any laws or regulations, the Contractor shall give Engineer prompt written notice thereof and any necessary changes will be authorized by one of the methods indicated in Paragraph 3.04
- D. Owner or Owner's authorized representative shall, at all reasonable times, be provided with access to and a right to inspect all Sites and facilities involved in the Project and access to and a right to examine or audit any and all books, documents, and records, financial or otherwise, relating to the Project or to ensure compliance with ORC Chapter 164, and, further, Owner shall be provided with such information as requested and required to document compliance with ORC Chapter 164.
- E. Payments to Contractor will be made by Owner and the State of Ohio based on their respective share of the Project cost. Owner shall not be responsible for any additional costs to Contractor resulting from delays in receiving payments from the State.

#### SC-6.13 Safety and Protection

Delete Paragraph 6.13.B of the General Conditions in its entirety and insert the following in its place:

- B. The Contractor shall comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971. The Contractor shall also comply with Chapter 4109 of the Ohio Revised Code prohibiting the Employment of Minors in Occupations Hazardous or Detrimental to their health.
  - 1. The Contractor shall maintain at his/her office or other well known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured at the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

#### **SC-6.20 Indemnification**

Add the following paragraph after Paragraph 6.20.A of the General Conditions:

1. The Contractor shall indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractor's laborers, workmen, mechanics, materialmen, and furnishers 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 fail 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, his 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 in good faith.

#### **SC-9.02 Visits to the Site**

Delete Paragraph 9.02.A in its entirety and insert the following new paragraph in its place:

- A. Engineer may make visits to the Site as Owner deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, at the request and benefit of Owner, may determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will advise Owner of the progress of the Work and will endeavor to guard Owner against defective Work.

#### **SC-9.03 Inspection Services**

Add a new paragraph immediately after Paragraph 9.03A which is to read as follows:

- B. Inspection Services shall be performed by a representative of the Owner under the supervision of a professional engineer licensed in the State of Ohio. The cost of inspection services shall be paid by the Contractor to the Owner at a rate of \$400.00 per 8-hour work day. Weekends and holidays shall be compensated at a rate of 1.5 times the normal rate. Work in excess of 8-hours per day shall be compensated at a rate of \$90.00 per hour at quarter-hour increments. In the event of a partial day of work, a minimum rate of \$60.00 per hour shall apply and shall not be less than \$240.00 per partial day. "Holidays" shall be defined as a federal legal holiday.

#### **SC-10.01 Authorized Changes in the Work**

Delete Paragraph 10.01.A of the General Conditions in its entirety and insert the following in its place:

- A. The Owner reserves the right to make, at any time during the progress of the work, such increases or decreases in quantities and such alterations in details of work as may be deemed necessary or desirable. Such increases or decreases and alterations shall not invalidate the Contractor nor release the surety, and the Contractor agrees to perform the work as altered, the same as if it had been a part of the original contract.
  - 1. Authorized alterations in plans or quantities of work involving work not covered by unit prices in the proposal shall be paid for as stipulated in the change order authorizing such work.

#### **SC-14.04 Substantial Completion**

Add the following paragraph after Paragraph 14.04.E

- F. The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one year from the date of Substantial Completion. The Contractor warrants and guarantees for a period of one year from the date of Substantial Completion of the improvement that it is free from all defects due to faulty materials or workmanship, and the Contractor shall promptly make corrections as may be necessary by reason of such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make repairs, adjustments, or other work which may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Contract Bond shall remain in full force and effect through the guarantee period.
- G. When the work, including that performed by Subcontractors, is completed, the site shall be cleaned of all rubbish and debris caused by the construction. All sheds or other temporary structures, surplus materials, and equipment shall be removed and the project left in a neat and presentable condition.

#### **SC-15.03 Owner May Terminate for Convenience**

Delete Paragraph 15.03.A of the General Conditions in its entirety and insert the following in its place:

- A. After ten (10) days from delivery of a Written Notice to the Contractor, 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 all work executed and any expense sustained plus reasonable profit, unless such termination was due to the act or conduct of the Contractor.

#### **SC-16 DISPUTE RESOLUTION**

Replace Article 16 with the following:

- A. This contract shall be construed under and in accordance with the laws of the State of Ohio.

- B. Contractor shall informally attempt to resolve all complaints brought to its attention regarding its performance of the Work. If a dispute arises, despite the best efforts of Contractor to resolve same, the parties shall use the following alternative dispute resolution ("ADR") procedure in good faith prior to pursuing other available judicial or non-judicial remedies:
1. Written notice specifying the nature of the dispute shall be provided to the adverse party, and Contractor and Owner shall each appoint an ADR representative. Each ADR representative shall have good decision-making authority regarding the dispute and shall endeavor in good faith to resolve the dispute within 30 days after the receipt of said notice.
  2. If the ADR representatives have not succeeded in resolving the dispute within 30 days after the receipt of said notice, the ADR representatives shall then jointly submit the matter for mediation through the Ashtabula County Joint Court Mediation Project, with any cost thereof to be split equally between Owner and Contractor.
  3. Nothing contained in this contract shall preclude either party from seeking interim or provisional relief from the court (including without limitation a temporary restraining order, preliminary injunction, or other interim relief) prior to or during the ADR process if said action is or becomes necessary to protect its interests pursuant to this contract.
- C. Owner and Contractor consent to venue in Ashtabula County, so that the Ashtabula County Common Pleas Court shall have exclusive and original jurisdiction to adjudicate any dispute, whether for interim or provisional relief, or because no satisfactory resolution of same can be achieved as a result of said ADR process.



## **SECTION 5 - PREVAILING WAGE**



**10 – DAY FEDERAL PREVAILING WAGE RATE VERIFICATION**

**OHIO DEPARTMENT OF DEVELOPMENT**

**CDBG PROGRAM**

Date: \_\_\_\_\_

Rebid?  YES  NO Date (if applicable): \_\_\_\_\_

Project Number / Grant Agreement Number and Activity: \_\_\_\_\_

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

Bid Opening Date: \_\_\_\_\_

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

Wage Decision Included in Bid Package: \_\_\_\_\_

Wage Classification (Heavy/Highway or Building): \_\_\_\_\_

Modification Number: \_\_\_\_\_ Publication Date: \_\_\_\_\_

Has there been an update to the wage decision?  YES  NO

If YES, general decision number: \_\_\_\_\_

Modification Number: \_\_\_\_\_

Publication Date: \_\_\_\_\_

Signature of reviewer: \_\_\_\_\_

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

Organization: \_\_\_\_\_

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

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_



## Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

**(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) **Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

"General Decision Number: OH20200001 07/31/2020

Superseded General Decision Number: OH20190001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/07/2020
3	03/13/2020
4	03/20/2020
5	04/10/2020
6	05/01/2020
7	06/12/2020
8	06/19/2020
9	07/10/2020
10	07/17/2020
11	07/31/2020

BROH0001-001 06/01/2019

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part

of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

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 BROH0001-004 06/01/2019

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 29.34	16.11

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 BROH0003-002 06/01/2019

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

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 BROH0005-003 05/01/2019

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS;		
CLEANERS; POINTERS; &		
STONEMASONS.....	\$ 34.85	16.94
SANDBLASTERS.....	\$ 35.10	16.94
SEWER BRICKLAYERS & STACK		
BUILDERS.....	\$ 35.35	16.94
SWING SCAFFOLDS.....	\$ 35.35	16.94

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 BROH0006-005 06/01/2019

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

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 BROH0007-002 06/01/2019

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0007-005 06/01/2019		

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER.....	\$ 29.34	16.11
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BROH0007-010 06/01/2019		

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE.....	\$ 29.34	16.11
-----		
BROH0008-001 06/01/2019		

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run, Middleton, & Unity Townships and the city of New Waterford), MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER.....	\$ 29.34	16.11
-----		
BROH0009-002 06/01/2019		

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt. Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
Refractory.....	\$ 31.45	19.01
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BROH0010-002 06/01/2019		

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington, Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek & Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
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BROH0014-002 06/01/2019		

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek,

Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
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BROH0016-002 06/01/2019		

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
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BROH0018-002 06/01/2019		

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0022-004 06/01/2019		

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin, Jefferson & Washington Townships) and SHELBY COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
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BROH0032-001 06/01/2019		

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
-----		
BROH0035-002 06/01/2019		

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11
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BROH0039-002 06/01/2019		

ADAMS & SCIOTO

Rates	Fringes
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Bricklayer, Stonemason.....\$ 29.34 16.11

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BROH0040-003 06/01/2019

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND,  
WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee  
Townships) COUNTIES

Rates Fringes  
Bricklayer, Stonemason.....\$ 29.34 16.11

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above  
journeyman rate.  
Free standing stack work ground level to top of stack;  
Sandblasting and laying of carbon masonry material in swing  
stage and/or scaffold; Ramming and spading of plastics and  
gunniting: \$1.50 per hour above journeyman rate.  
""Hot"" work: \$2.50 above journeyman rate.

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BROH0044-002 06/01/2019

Rates Fringes  
Bricklayer, Stonemason  
COSHOCKTON, FAIRFIELD,  
GUERNSEY, HOCKING, KNOX,  
KICKING, MORGAN,  
MUSKINGUM, NOBLE (Beaver,  
Buffalo, Seneca & Wayne  
Townships) & PERRY  
COUNTIES:.....\$ 29.34 16.11

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BROH0045-002 06/01/2017

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

Rates Fringes  
Bricklayer, Stonemason.....\$ 28.65 14.55

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BROH0046-002 06/01/2019

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry &  
Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge &  
Richland Townships) COUNTIES & the Islands of Lake Erie north  
of Sandusky

Rates Fringes  
Bricklayer, Stonemason.....\$ 29.34 16.11

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above  
journeyman rate.  
Free standing stack work ground level to top of stack;

Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.  
 ""Hot"" work: \$2.50 above journeyman rate.

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 BROH0052-001 06/01/2019

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

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 BROH0052-003 06/01/2019

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.34	16.11

-----  
 BROH0055-003 06/01/2017

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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 CARP0003-004 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	\$ 26.20	17.42

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 CARP0069-003 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER.....	\$ 25.98	15.98

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 CARP0069-006 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	\$ 24.04	15.29

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 CARP0171-002 05/01/2019

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	\$ 27.37	20.02

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 CARP0200-002 05/01/2017

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 and WASHINGTON  
 COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 29.07	16.22
Diver.....	\$ 39.41	10.40
PILEDRIVERMAN.....	\$ 29.07	16.22

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 CARP0248-005 07/01/2008

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	\$ 27.27	14.58

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 CARP0248-008 07/01/2008

	Rates	Fringes
CARPENTER DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES.....	\$ 23.71	13.28

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 CARP0254-002 05/01/2017

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER.....	\$ 32.40	16.97

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 CARP0372-002 05/01/2016

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER.....	\$ 24.54	18.21

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 CARP0639-003 05/01/2017

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER.....	\$ 30.42	16.99
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CARP0735-002 05/01/2019		

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER.....	\$ 26.30	17.91
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CARP1311-001 05/01/2017		

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

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 29.34	15.95
Diver.....	\$ 40.58	9.69
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CARP1393-002 07/01/2008		

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA,  
PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender...\$	27.30	16.05
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DIVERS - \$250.00 per day		
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CARP1393-003 07/01/2008		

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...\$	25.15	15.92
-----		
DIVERS - \$250.00 per day		
-----		
CARP1871-006 05/01/2017		

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	\$ 48.11	17.33
Piledrivermen; Diver, Dry.....	\$ 32.07	17.33
-----		
CARP1871-008 05/01/2017		

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE,

LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	\$ 45.80	18.84
Piledrivermen; Diver, Dry.....	\$ 30.53	18.84

-----  
CARP1871-014 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	\$ 38.34	16.95
Piledrivermen; Diver, Dry.....	\$ 25.56	16.95

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CARP1871-015 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
Diver, Wet.....	\$ 37.34	16.07
Piledrivermen; Diver, Dry.....	\$ 24.89	16.07

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CARP1871-017 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
Diver, Wet.....	\$ 40.65	17.62
Piledrivermen; Diver, Dry.....	\$ 27.10	17.62

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CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN.....	\$ 31.74	16.41

-----  
CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER.....	\$ 23.71	13.28

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\* ELEC0008-002 05/25/2020

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,  
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

Rates	Fringes
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CABLE SPLICER.....	\$ 38.98	18.96
ELECTRICIAN.....	\$ 41.81	4.5%+20.73

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 ELEC0032-003 12/02/2019

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT &  
 WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland,  
 Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 31.37	19.24

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 ELEC0038-002 04/27/2020

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
 LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN Excluding Sound & Communications Work.....	\$ 39.88	21.22

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;  
 Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid  
 vacation for 2 or more years' service

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 ELEC0038-008 04/29/2019

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
 LORAIN (Columbia Township)

	Rates	Fringes
Sound & Communication Technician Communications Technician...	\$ 27.55	11.98
Installer Technician.....	\$ 26.30	11.94

FOOTNOTES;

- a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;  
 Labor Day; Thanksgiving Day; & Christmas Day
- b. 1 week's paid vacation for 1 year's service; 2 weeks' paid  
 vacation for 2 or more years' service

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 ELEC0064-003 11/25/2019

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)  
 MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield,

Ellsworth, Coitsville, Goshen, Green, Jackson, Poland,  
 Springfield & Youngstown Townships), & TRUMBULL (Hubbard &  
 Liberty Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 34.67	15.83
-----		
ELEC0071-001 01/01/2019		

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE,  
 FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING,  
 JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston  
 Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN,  
 MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver,  
 Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal  
 Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay,  
 Jefferson, Oxford, Perry, Salem, Rush, Washington & York  
 Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison,  
 Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operators.....	\$ 33.62	13.40
Groundmen.....	\$ 24.17	11.32
Linemen & Cable Splicers....	\$ 38.27	14.42
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ELEC0071-004 01/01/2019		

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI,  
 MONTGOMERY, PREBLE, and SHELBY COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42
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ELEC0071-005 12/31/2018		

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
LINE CONSTRUCTION: Equipment Operator		
DOT/Traffic Signal & Highway Lighting Projects...\$	32.44	14.10
Municipal Power/Transit Projects.....\$	40.10	16.42
LINE CONSTRUCTION: Groundman		
DOT/Traffic Signal & Highway Lighting Projects...\$	25.06	12.26

Municipal Power/Transit Projects.....	\$ 31.19	14.11
LINE CONSTRUCTION:		
Linemen/Cable Splicer DOT/Traffic Signal & Highway Lighting Projects...	\$ 36.13	15.03
Municipal Power/Transit Projects.....	\$ 44.56	17.58

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ELEC0071-008 01/01/2019

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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ELEC0071-010 01/01/2019

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE,  
STARK, SUMMIT, and WAYNE COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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ELEC0071-013 01/01/2019

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32
Lineman & Cable Splicers....	\$ 38.27	14.42

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ELEC0071-014 01/01/2019

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton,  
Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS,  
PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union  
Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton &  
Wilkesville Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 33.62	13.40
Groundman.....	\$ 24.17	11.32

Lineman & Cable Splicers....\$ 38.27 14.42

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ELEC0082-002 12/02/2019

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN  
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 31.15	19.96

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ELEC0082-006 11/26/2018

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN  
(Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller.....	\$ 12.18	3.85
Installer/Technician.....	\$ 24.35	11.29

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ELEC0129-003 02/24/2020

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 35.35	17.68

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ELEC0129-004 02/24/2020

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman,  
Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich,  
Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 35.35	17.68

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ELEC0141-003 09/01/2019

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 30.63	25.87
ELECTRICIAN.....	\$ 30.38	25.87

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ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	10.99

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 ELEC0212-005 06/03/2019

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.18	18.89

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 ELEC0245-001 01/01/2020

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.37	25.9%+6.75
Groundman Truck Driver.....	\$ 17.70	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

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 ELEC0245-003 01/01/2020

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 46.53	25.9%+6.75
Groundman/Truck Driver.....	\$ 17.70	25.9%+6.75
Heli-arc Welding.....	\$ 40.76	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75
Operator - Class 1.....	\$ 32.37	25.9%+6.75
Operator - Class 2.....	\$ 28.32	25.9%+6.75
Traffic Signal & Lighting Technician.....	\$ 36.41	25.9%+6.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

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 ELEC0245-004 01/01/2020

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 46.53	25.9%+6.75
Groundman/Truck Driver.....	\$ 17.70	25.9%+6.75
Lineman.....	\$ 40.46	25.9%+6.75
Operator - Class 1.....	\$ 32.37	25.9%+6.75
Operator - Class 2.....	\$ 28.32	25.9%+6.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-001 10/29/2018

	Rates	Fringes
ELECTRICIAN.....	\$ 38.00	84%+a

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

ELEC0306-005 05/28/2018

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 36.87	16.56
ELECTRICIAN.....	\$ 34.54	5%+18.06

ELEC0317-002 06/01/2020

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER.....	\$ 32.68	18.13
ELECTRICIAN.....	\$ 35.10	26.22

ELEC0540-005 01/01/2020

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn,

Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.71	24.22

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 \* ELEC0573-003 06/01/2020

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 34.11	19.46

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 ELEC0575-001 06/01/2020

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 33.75	18.47

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 ELEC0648-001 09/02/2019

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 30.50	18.23
ELECTRICIAN.....	\$ 30.00	19.85

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 ELEC0673-004 02/01/2020

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

Rates	Fringes
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CABLE SPLICER.....	\$ 33.81	21.47
ELECTRICIAN.....	\$ 33.56	21.47

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ELEC0683-002 06/01/2020

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON,  
PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison,  
Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and  
UNION COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 35.50	21.06
ELECTRICIAN.....	\$ 34.50	21.06

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\* ELEC0688-003 06/01/2020

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley &  
Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard,  
Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown &  
Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT  
(Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships)  
COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.00	19.66

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ELEC0972-002 06/01/2019

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox,  
Madison, Vinton & Wilkesville Townships), and WASHINGTON  
COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.80	26.65
ELECTRICIAN.....	\$ 33.55	26.65

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ELEC1105-001 05/28/2018

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller,  
Milford, Hilliar, Butler, Harrison, Pleasant & College  
Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn,  
York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry &  
Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.95	17.96

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ENGI0018-003 05/01/2019

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA,

PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 38.63	15.20
GROUP 2.....	\$ 38.53	15.20
GROUP 3.....	\$ 37.49	15.20
GROUP 4.....	\$ 36.27	15.20
GROUP 5.....	\$ 30.98	15.20
GROUP 6.....	\$ 38.88	15.20
GROUP 7.....	\$ 39.13	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low

pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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ENGI0018-004 05/01/2019

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, and YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 37.14	15.20
GROUP 2.....	\$ 37.02	15.20
GROUP 3.....	\$ 35.98	15.20
GROUP 4.....	\$ 34.80	15.20
GROUP 5.....	\$ 29.34	15.20
GROUP 6.....	\$ 37.39	15.20
GROUP 7.....	\$ 37.64	15.20

#### OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag

capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer except masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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 ENGI0066-023 06/01/2017

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B.....	\$ 39.23	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B.....	\$ 38.90	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B.....	\$ 34.64	19.66

ASBESTOS; HAZARDOUS/TOXIC  
WASTE PROJECTS

GROUP 4 - A & B.....\$ 30.70	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 5 - A & B.....\$ 27.30	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 1 - C & D.....\$ 35.96	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 2 - C & D.....\$ 35.66	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 3 - C & D.....\$ 31.76	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 4 - C & D.....\$ 28.14	19.66
HAZARDOUS/TOXIC WASTE PROJECTS	
GROUP 5 - C & D.....\$ 25.03	19.66
ALL OTHER WORK	
GROUP 1.....\$ 32.69	19.66
ALL OTHER WORK	
GROUP 2.....\$ 32.42	19.66
ALL OTHER WORK	
GROUP 3.....\$ 28.87	19.66
ALL OTHER WORK	
GROUP 4.....\$ 25.58	19.66
ALL OTHER WORK	
GROUP 5.....\$ 22.75	19.66

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead;

Crane-Rough Terrain; Crane-Side Boom; Crane-Truck;  
Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not  
trencher or road widener); Double Nine; Drag Line; Dredge;  
Drill-Kenny or Similar Type; Easy Pour Median Barrier  
Machine (or similar type); Electromatic; Frankie Pile;  
Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment  
Robotics Operator/Mechanic; Hoist-Monorail;  
Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum;  
Horizontal Directional Drill Operator; Jackall; Jumbo  
Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader,  
Elevating; Loader, Front End; Loader, Skid Steer;  
Locomotive; Mechanic/Welder; Metro Chip Harvester with  
Boom; Mucking Machine; Paver-Asphalt Finishing Machine;  
Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar);  
Place Crete Machine with Boom; Post Driver (Carrier  
mounted); Power Driven Hydraulic Pump & Jack (When used in  
Slip Form or Lift Slab Construction); Pump Crete Machine;  
Regulator Ballast; Hydraulic Power Unit not attached to Rig  
for Pile Drillings; Rigs-Drilling; Roto Mill or similar  
Full Lane (8' Wide & Over); Roto Mill or similar type  
(Under 8'); Shovel; Slip Form Curb Machine; Speedwing;  
Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper;  
Tractor-Double Boom; Tractor with Attachments; Truck-Boom;  
Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java  
or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar  
type); Boring machine, Motor Driven; Chip Harvester  
without Boom; Cleaning Machine, Pipeline Type; Coating  
Machine, Pipeline Type; Compactor; Concrete Belt Placer;  
Concrete Finisher; Concrete Planer or Asphalt; Concrete  
Spreader; Elevator; Fork Lift (Home building only); Fork  
lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck  
high); Form Line Machine; Grease Truck operator; Grout  
Pump; Gunnite Machine; Horizontal Directional Drill  
Locator; Single Drum Hoist with or without Tower; Huck  
Bolting Machine; Hydraulic Scaffold (Hoisting building  
materials); Paving Breaker (Self-propelled or Ridden);  
Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration  
Plant; Road Widener; Roller; Sasgen Derrick; Seeding  
Machine; Soil Stabilizer (Pump type); Spray Cure Machine,  
Self-Propelled; Straw Blower Machine; Sub-Grader; Tube  
Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch  
Plant-Job Related; Boiler Operator; Compressor; Conveyor;  
Curb Builder, self-propelled; Drill Wagon; Generator Set;  
Generator-Steam; Heater-Portable Power; Hydraulic  
Manipulator Crane; Jack-Hydraulic Power driven;  
Jack-Hydraulic (Railroad); Ladavator; Minor Machine  
Operator; Mixer-Concrete; Mulching Machine; Pin Puller;  
Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull  
Type); Saw-Concrete-Self-Propelled (Highway Work); Signal  
Person; Spray Cure Machine-Motor Powered; Stump Cutter;  
Tractor; Trencher Form; Water Blaster; Steam Jenny;  
Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

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IRON0017-002 05/01/2020

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
IRONWORKER		
Ornamental, Reinforcing, & Structural.....	\$ 35.93	23.11

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IRON0017-010 05/01/2020

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
IRONWORKER		
Structural, including metal building erection & Reinforcing.....	\$ 35.93	23.11

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IRON0044-001 06/01/2018

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING		
Beyond 30-mile radius of Hamilton County Courthouse..	\$ 28.67	21.20
Up to & including 30-mile radius of Hamilton County Courthouse.....	\$ 27.60	20.70

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IRON0044-002 06/01/2020

CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of

county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) & WARREN (South of a line drawn from Blanchester through Morrow to the west county line)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 28.76	21.40
Ornamental; Structural.....	\$ 30.27	21.40

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IRON0055-003 07/01/2019

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30 meet through N. Liberty to the northern border & from said Hwy junction point due west to the border), DEFIANCE (S. of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), ERIE (Western 1/3), FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville to a point 4 miles south of the northern line on the eastern line), HENRY, HURON (West of a line drawn from the northern border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM (East of a line drawn from the northern border down through Miller City to where #696 meets the southern border), SANDUSKY, SENECA, WILLIAMS (East of a line drawn from Pioneer through Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 21.30	20.92
Flat Road Mesh.....	\$ 29.77	21.30
Tunnels & Caissons Under Pressure.....	\$ 29.77	21.30
All Other Work.....	\$ 30.38	24.40

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IRON0147-002 06/01/2015

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 25.39	20.64

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IRON0172-002 06/01/2020

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth),

COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 30.75	20.80

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 \* IRON0207-004 06/01/2020

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter.....	\$ 31.25	25.75
Ornamental; Reinforcing;		
Structural.....	\$ 28.06	24.70
Ornamental; Reinforcing.....	\$ 30.25	25.75

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 \* IRON0290-002 06/01/2020

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.68	22.90

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 IRON0549-003 12/01/2018

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM

(Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

	Rates	Fringes
IRONWORKER.....	\$ 33.34	20.81
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IRON0550-004 05/01/2019		

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

	Rates	Fringes
Ironworkers:Structural, Ornamental and Reinforcing.....	\$ 28.90	19.87
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IRON0769-004 06/01/2020		

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER.....	\$ 32.75	26.34
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IRON0787-003 12/01/2019		

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 30.18	22.75
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LABO0265-008 05/01/2018		

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1.....	\$ 31.05	10.95
GROUP 2.....	\$ 31.22	10.95
GROUP 3.....	\$ 31.55	10.95
GROUP 4.....	\$ 32.00	10.95
CUYAHOGA AND GEAUGA		

COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS CONSTRUCTION.....	\$ 33.66	10.95
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1.....	\$ 32.28	10.95
GROUP 2.....	\$ 32.45	10.95
GROUP 3.....	\$ 32.78	10.95
GROUP 4.....	\$ 33.23	10.95
REMAINING COUNTIES OF OHIO		
GROUP 1.....	\$ 30.62	10.95
GROUP 2.....	\$ 30.79	10.95
GROUP 3.....	\$ 31.12	10.95
GROUP 4.....	\$ 31.57	10.95

### LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarnner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID  
THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

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PAIN0006-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the  
East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
PAINTER		
COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS		
GROUP 1.....	\$ 27.90	16.16
GROUP 2.....	\$ 28.30	16.16
GROUP 3.....	\$ 28.60	16.16
GROUP 4.....	\$ 34.16	16.16
COMMERCIAL REPAINT		
GROUP 1.....	\$ 26.40	16.16
GROUP 2.....	\$ 26.80	16.16
GROUP 3.....	\$ 27.10	16.16

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; &  
RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges  
& Open Structural Steel; Tanks - Water Towers; Bridge  
Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

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PAIN0007-002 07/01/2019

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono,  
Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach,  
Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1.....	\$ 27.64	17.79

GROUP 2.....	\$ 27.39	17.79
GROUP 3.....	\$ 27.39	17.79
GROUP 4.....	\$ 27.39	17.79
GROUP 5.....	\$ 27.39	17.79
GROUP 6.....	\$ 27.39	17.79
GROUP 7.....	\$ 27.39	17.79
GROUP 8.....	\$ 27.39	17.79
GROUP 9.....	\$ 27.39	17.79

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

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PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 21.95	10.20
GROUP 2.....	\$ 25.30	10.20
GROUP 3.....	\$ 25.80	10.20
GROUP 4.....	\$ 26.05	10.20
GROUP 5.....	\$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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PAIN0012-010 05/01/2019

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES-		
GUARDRAILS-LIGHTPOLES-		
STRIPING		
Bridge Equipment Tender and Containment Builder....	\$ 21.95	10.20
Bridges when highest point of clearance is 60 feet or more; & Lead Abatement Projects.....	\$ 26.30	10.20
Brush & Roller.....	\$ 25.30	10.20
Sandblasting & Hopper Tender; Water Blasting.....	\$ 26.05	10.20
Spray.....	\$ 25.80	10.20

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PAIN0093-001 12/01/2018

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams; Tension Towers; & Energized Substations.....	\$ 34.04	18.50
Power Generating Facilities.	\$ 30.89	18.50

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PAIN0249-002 05/01/2019

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller....	\$ 23.67	11.50
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes.....	\$ 23.67	11.50
GROUP 3 - Spray;		

Sandblast; Steamclean;		
Lead Abatement.....	\$ 24.42	11.50
GROUP 4 - Steeplejack Work..	\$ 24.62	11.50
GROUP 5 - Coal Tar.....	\$ 25.17	11.50
GROUP 6 - Bridge Equipment Tender & or Containment Builder.....	\$ 32.38	11.50
GROUP 7 - Tanks, Stacks & Towers.....	\$ 27.31	11.50
GROUP 8 - Bridge Blaster, Rigger.....	\$ 35.38	11.50

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PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
PAINTER		
Bridge Equipment Tenders and Containment Builders....	\$ 27.93	7.25
Bridges; Blasters; and Riggers.....	\$ 34.60	7.25
Brush and Roller.....	\$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work.....	\$ 25.82	7.25
Spray.....	\$ 21.40	7.25
Structural Steel and Swing Stage.....	\$ 25.42	7.25
Tanks; Stacks; and Towers...	\$ 28.63	7.25

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PAIN0438-002 12/01/2018

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
PAINTER		
Bridges, Locks, Dams, Tension Towers & Energized Substations.....	\$ 32.80	17.68
Power Generating Facilities.	\$ 29.65	17.68

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PAIN0476-001 06/01/2019

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 25.82	16.58
GROUP 2.....	\$ 32.45	16.58
GROUP 3.....	\$ 26.03	16.58
GROUP 4.....	\$ 26.47	16.58
GROUP 5.....	\$ 26.47	16.58
GROUP 6.....	\$ 26.72	16.58
GROUP 7.....	\$ 27.82	16.58

Painter Classifications:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above 50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

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PAIN0555-002 06/01/2019

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 31.04	16.31
GROUP 2.....	\$ 32.50	16.31
GROUP 3.....	\$ 33.96	16.31
GROUP 4.....	\$ 36.82	16.31

Painter Classifications

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

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PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector.....	\$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day

b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service -

20 days' paid vacation  
 c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

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 PAIN0788-002 06/01/2019

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 24.66	14.05
Structural Steel.....	\$ 26.26	14.05

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$ .50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

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 PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate.....	\$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers.....	\$ 27.83	10.00

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 PAIN0841-001 06/01/2018

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

Rates	Fringes
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Painters:

GROUP 1.....	\$ 25.75	14.35
GROUP 2.....	\$ 26.40	14.35
GROUP 3.....	\$ 26.50	14.35
GROUP 4.....	\$ 26.60	14.35
GROUP 5.....	\$ 27.00	14.35
GROUP 6.....	\$ 39.20	11.75
GROUP 7.....	\$ 27.00	14.35

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper, Drywall Finisher and Follow-up Man Using Automatic Tools

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PAIN0841-002 06/01/2018

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

Rates Fringes

PAINTER

Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing.....	\$ 22.78	13.63
Brush & Roller.....	\$ 21.77	13.63
Spray; Tank Interior & Exterior.....	\$ 22.60	13.63

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PAIN1020-002 04/01/2019

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

Rates Fringes

PAINTER

Brush & Roller.....	\$ 24.57	15.03
Drywall Finishing & Taping..	\$ 23.27	15.03

Lead Abatement.....	\$ 26.32	15.03
Spray, Sandblasting Pressure Cleaning, & Refinery.....	\$ 25.32	15.03
Swing Stage, Chair, Spiders, & Cherry Pickers...	\$ 24.82	15.03
Wallcoverings.....	\$ 22.17	15.03

All surfaces 40 ft. or over where material is applied to or labor performed on, above ground level (exterior), floor level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

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PAIN1275-002 05/01/2019

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION

	Rates	Fringes
PAINTER		
Bridges.....	\$ 34.24	14.20
Brush; Roller.....	\$ 24.76	14.20
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work.....	\$ 25.46	14.20
Spray.....	\$ 25.26	14.20
Stacks; Tanks; & Towers.....	\$ 28.27	14.20
Structural Steel & Swing Stage.....	\$ 25.06	14.20

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PLAS0109-001 05/01/2018

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0109-003 05/01/2018

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLAS0132-002 05/01/2018

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0404-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

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PLAS0404-003 05/01/2018

LORAIN COUNTY

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0526-022 05/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0526-023 05/01/2018

BELMONT, HARRISON, and JEFFERSON COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLAS0886-001 05/01/2018

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

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PLAS0886-003 05/01/2018

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0886-004 05/01/2018

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLUM0042-002 07/01/2018

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND  
& WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.20	22.07

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PLUM0050-002 07/06/2020

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,  
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 43.60	26.73

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\* PLUM0055-003 05/04/2020

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 &  
Smith Road) & SUMMIT (N. of Rte. #303, including the corporate  
limits of the city of Hudson)

	Rates	Fringes
PLUMBER.....	\$ 37.07	27.71

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PLUM0083-001 07/01/2017

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter.....	\$ 32.16	31.51

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PLUM0094-002 05/01/2019

CARROLL (Northern Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 35.78	20.14

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PLUM0120-002 05/04/2020

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power  
House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of  
#303)

	Rates	Fringes
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PIPEFITTER.....\$ 40.22 25.48

\* PLUM0162-002 06/01/2020

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI,  
MONTGOMERY & PREBLE

Rates Fringes

Plumber, Pipefitter,  
Steamfitter.....\$ 32.25 26.47

PLUM0168-002 06/01/2019

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78)  
& WASHINGTON

Rates Fringes

PLUMBER/PIPEFITTER.....\$ 35.32 31.63

PLUM0189-002 06/01/2019

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

Rates Fringes

Plumber, Pipefitter,  
Steamfitter.....\$ 38.45 16.98

PLUM0219-002 05/31/2018

MEDINA (Rte. #18 from eastern edge of Medina Co., west to  
eastern corporate limits of the city of Medina, & on the county  
road from the west corporate limits of Medina running due west  
to and through community of Risley to the western edge of  
Medina County - All territory south of this line), PORTAGE, and  
SUMMIT (S. of Rte. #303) COUNTIES

Rates Fringes

Plumber and Steamfitter.....\$ 37.02 23.79

PLUM0392-002 06/01/2020

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

Rates Fringes

PLUMBER/PIPEFITTER.....\$ 33.91 22.29

PLUM0396-001 06/01/2019

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 34.00	25.46
-----		
PLUM0495-002 06/01/2018		

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 38.24	23.09
-----		
PLUM0577-002 06/01/2019		

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.90	24.11
-----		
PLUM0776-002 08/01/2019		

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 36.64	24.73
-----		
TEAM0377-003 05/01/2020		

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 28.89	15.40
GROUP 2.....	\$ 29.31	15.40

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service; 4-wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer; Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When Operated From Cab; 5 Axles & Over; Belly Dump; End Dump; Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck Mechanic

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TEAM0436-002 05/01/2019

CUYAHOGA, GEauga & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 28.40	16.95
GROUP 2.....	\$ 28.90	16.95

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

## Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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## WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor

200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"



## **SECTION 6 - TECHNICAL SPECIFICATIONS**



## SECTION 01010

### GENERAL REQUIREMENTS

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. The Contractor shall provide all labor, tools, equipment, and materials necessary to complete the work in accordance with drawings and as specified herein.

##### 1.3 QUALITY ASSURANCE

- A. Perform all work in compliance with current applicable requirements of governing agencies having jurisdiction.
- B. The Contractor shall engage a testing laboratory acceptable to the Owner to perform inspection and tests when required.

##### 1.4 SUBMITTALS

- A. Furnish samples, manufacturer's product data, test reports, and material certifications as required for materials and mix designs.
- B. The Contractor shall give the Owner and Engineer 72 hours minimum notice (excluding Saturdays, Sundays and legal holidays) as to when the actual construction is to begin so that all affected parties may be notified.

##### 1.5 JOB CONDITIONS

- A. Confine operations to areas within the Work limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed. Limit use of the premises to construction activities in areas indicated.
- B. Keep driveway and entrances clear and available to the property Owner at all times. Do not use these areas for parking or storage of material. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Waste material shall not be buried within the project site.

##### 1.6 CONSTRUCTION SCHEDULE

- A. Immediately after signing the Contract, the general Contractor shall prepare a graphic progress schedule, indicating the work to be executed during each month and the rate of expected progress to secure completion on the agreed upon completion date. The progress schedule shall be approved by the Owner and Engineer prior to starting work on the site. Copies of such graphic progress charts, upon which has been indicated the

actual progress, shall be furnished to the Owner and Engineer with each requisition for payment.

1.7 PRE-CONSTRUCTION MEETING

- A. Prior to the Contractor beginning any work on the project, the Owner or Owner's representative will schedule and hold a preconstruction meeting to discuss all aspects of the work.
- B. The Contractor shall be present and be prepared to comment in detail on all aspects of his work.

1.8 SAFETY

- A. Safety requirements shall be in accordance with the General Conditions and the Occupational Safety and Health Act of 1970, U.S. Department of Labor. The Contractor is required to provide additional provisions for the safety of children in excavations, open manholes or similar hazards shall not be left unattended. Excavations shall be secured at night and all equipment and supplies moved to a secure site.

1.9 PERMITS

- A. It shall be the Contractor's responsibility to pay for and obtain all permits, including any necessary building, demolition, and excavation permits. All permit costs and fees including construction deposits shall be borne by the Contractor

1.10 ACCESS TO FACILITIES

- A. The Contractor shall minimize the amount of ground area required for his equipment. The Contractor shall not obstruct access to buildings and shall maintain traffic at all times.

1.11 PROTECTION OF FACILITIES

- A. The Contractor shall exercise extreme caution within and adjacent to his work areas so as not to damage existing facilities. The Contractor shall assume all responsibility for the protection of any existing facility to remain in service. Any facilities are damaged due to the Contractor's operations shall be repaired or replaced according to Ashtabula County Department of Environmental Services Water Department Specifications at no expense to the Owner.

1.12 TEMPORARY UTILITIES

- A. The Contractor shall furnish at his own expense all electrical power which may be required for the project. All temporary lines shall be furnished and installed by the Contractor at his own expense in a manner which meets the approval of the Engineer, and shall be removed by the Contractor at the completion of the construction.
- B. The Contractor shall make his own arrangements to have water at the construction site for any required use. All costs for having water at the construction site shall be paid by the Contractor.

- C. Suitable sanitary facilities for the use of all persons employed on the construction site shall be provide, maintained, and paid for by each Contractor. The sanitary conveniences shall be properly screened from public observation. The Contractor shall obey and enforce such other sanitary regulations and orders and shall take such precautions against infectious diseases as may be deemed necessary by the Owner and/or Engineer.

1.13 SITE CLEAN-UP

- A. All debris, rubble, and unusable materials and item not salvaged shall become the property of the Contractor, and shall be removed from the site.

1.14 PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKER

- A. The Contractor shall preserve all cornerstones, iron pins, monuments, or any other type of land monument. He shall have all land monuments in the proximity of the work referenced. He shall replace destroyed or damaged monuments and shall furnish a certification by a registered surveyor that the monuments have been restored.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01042

### SUBSTITUTIONS

#### PART 1 GENERAL

##### 1.1 MATERIALS AND EQUIPMENT

- A. In the specifications and on the Engineer's drawings, are specified and shown certain pieces of equipment and materials deemed most suitable for the service anticipated. This is not done to eliminate other equipment and materials equally as good and efficient. The Contractor shall prepare his bid on the particular materials and equipment specified. Following the award of the contract, should the contractor desire to use other equipment and materials, he shall submit to the Owner a written request for such change and state the advantage to the Owner and the savings or additional costs involved by the proposed substitution. The determination as to whether or not such change will be permitted rests with the Owner and the Engineer.
  
- B. Each Major item of equipment shall be inspected by a manufacturer's representative during installation and upon completion of the work. The Contractor shall supply the Engineer with certificate of such inspections.

END OF SECTION

## SECTION 01098

### RECORD DRAWINGS

#### PART 1 GENERAL

##### 1.1 RECORD DRAWINGS

- A. The Contractor shall furnish an authentic set of marked-up drawings showing the installation insofar as the installation shall have differed from the Engineer's drawings. The drawings shall be delivered to the Engineer for making revisions to the original drawings immediately after final acceptance by the Owner.
- B. Submit two (2) copies of marked up record drawings. Record drawings shall be full size to scale copies of the original Contract Drawings.
- C. The Contractor shall furnish dimensioned drawings indicating locations of all underground mechanical and electrical facilities.

END OF SECTION

## SECTION 01210

### ALLOWANCES

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Cash Allowances

##### 1.2 CASH ALLOWANCES

- A. **Costs Included in Cash Allowance:** Cost of product to the Contractor or subcontractor, less applicable trade discounts, less costs of delivery to site, less applicable taxes.
- B. **Costs Not Included in Cash Allowance:** Products delivery to site and handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; labor for installing and finishing (except for unforeseen condition allowance).
- C. **Engineer Responsibility:**
  - 1. Consult with Contractor for consideration and selection of products, suppliers, and installers.
  - 2. Select products in consultation with Owner and transmit decision to Contractor.
  - 3. Prepare Change Order
- D. **Contractor Responsibility:**
  - 1. Assist Engineer in selection of products, suppliers, and installers.
  - 2. Obtain proposals from suppliers, installers, and offer recommendations.
  - 3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
  - 4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
  - 5. Promptly inspect products upon delivery for completeness, damage, and defects.
  - 6. Submit claims for transportation damage.
- E. Difference in cost will be adjusted by Change Order.

##### 1.3 ALLOWANCE SCHEDULE

- A. **Unforeseen Conditions:**
  - 1. Contractor shall include in his bid an allowance of \$4,500 for any additional work requested by the Owner or Engineer.
- B. **Electrical Utility:**
  - 1. Contractor shall include in his bid an allowance of \$6,000 for fees billed directly to the Contractor by First Energy from work related to the new lift station power service

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01300

### SUBMITTALS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

##### 1.2 QUALITY ASSURANCE

- A. The Contractor shall verify the correctness and completeness of all submittals prior to forwarding same to the Owner for review. Contractor shall not make submittals to the Owner that do not comply with the Contract Documents. Cost to review any submittals more than twice will be deducted from Contractor's monthly estimates and final payments.
- B. Each submittal shall bear the Contractor's approval stamp, signature, and date of approval. The approval stamp shall state that the submittal is in accordance with the Contract Documents. The Contractor shall also identify any deviation in the submittal from the drawings and/or specifications.

##### 1.3 SUBMITTALS

- A. Provide the following as required by each individual section of the specifications.
  - 1. Shop drawings.
  - 2. Product data.
  - 3. Samples.
  - 4. Operation and Maintenance manuals.
  - 5. Personnel qualifications.
  - 6. Installation/inspection data.
  - 7. Product/material certifications.
  - 8. Others include:
    - a. Special Warranties.
    - b. Repair parts list.
    - c. Construction schedules.

##### 1.4 SUBMITTAL PROCEDURES

- A. Coordinate: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

- a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
- C. Identification: Place permanent label or title block on each submittal for identification.
  1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide space approximately four (4) inches by six (6) inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
  3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Engineer.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Submittal number or other unique identifier, including revision identifier.
    - i. Drawing number and detail references, as appropriate.
    - j. Other necessary identification.
- D. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- E. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review from sources other than Contractor.
- F. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  1. Note date and content of previous submittal
  2. Note date and content of revision in label or title block and clearly indicate extent of revision.

- G. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdictions, and others as necessary for performance of construction activities. Shown distribution on transmittal forms.

## **PART 2 PRODUCTS**

### **2.1 ACTION SUBMITTAL**

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to shown which products and options are applicable.
  - 3. Include the following information as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Manufacturer's catalog cuts.
    - e. Printed performance curves.
    - f. Operational range diagrams.
    - g. Compliance with specified referenced standards.
    - h. Testing by recognized testing agency.
  - 4. Number of copies: Submit four (4) copies of Product Data, unless otherwise indicated. Engineer will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Preparation: Fully illustrate requirements in the contract Documents. Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Notation of coordination requirements.
    - f. Notation of dimensions established by field measurement.
  - 2. Sheet size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Contractor shall review and examine all shop drawings, product data, samples, operation and maintenance manuals, personnel qualifications, performance test reports, product /material certifications, and other information or materials for compliance with the Contract Documents prior to submittal for approval.
- B. Contractor shall prepare a schedule for submittal of shop drawings, product data, samples, operation and maintenance manuals, personnel qualifications, performance tests reports, product/materials certifications, and other information or materials for compliance with the Contractor Documents prior to submittal for approval.
- C. The Contractor shall submit a minimum of four (4) copies for each submittal required by the individual specification sections. Upon approval the Engineer will retain two (2) copies of approved submittals and return two (2) copies to the Contractor.

### **3.2 ENGINEER'S ACTION**

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- C. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

**END OF SECTION**

## SECTION 01380

### PRECONSTRUCTION AUDIO-VIDEO RECORDING

#### PART 1 GENERAL

##### 1.1 SCOPE OF WORK

- A. Furnish all labor, material, and equipment to furnish color audio video recording of the project site as specified herein.
- B. Furnish to the Engineer an original and one copy of a continuous color audio video recording of the entire area within fifty (50) feet of the construction area. The recording shall be taken prior to any construction activity.
- C. The Engineer reserves the right to reject the audio video recording because of poor quality, unintelligible audio or uncontrolled pan or zoom. Any recording rejected by the Engineer shall be rerecorded at no additional cost to the Owner. Under no circumstances shall construction begin until the Engineer has received and approved the audio video DVD(s).
- D. The recording shall be performed by a qualified, established audio video recording firm knowledgeable in construction practices which has a minimum of one year of experience in the implementation of established inspection procedures.

#### PART 2 PRODUCTS (NOT USED)

#### PART 3 EXECUTION

##### 3.1 COLOR AUDIO VIDEO SURVEY

- A. Furnish a continuous color audio-video recording of the entire area within fifty (50) feet of construction
- B. Complete coverage shall include all surface features within fifty (50) feet of the work area to be utilized by the Contractor and shall be supported by appropriate audio description made simultaneously with video coverage. Such coverage shall include, but is not limited to, all existing driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culverts, headwalls, retaining walls, equipment, structures, pavements, manholes, vaults, handrails, etc. located within the aforementioned work zone. Video coverage shall extend to the maximum height of all structures within this zone.

##### 3.2 AUDIO AND VIDEO

- A. Contractor shall furnish continuous color, audio-video DVD(s) of professional quality.
- B. Each DVD shall begin with the Owner's name, Contract name and number, Contractor's name, date and location information such as street name, direction of travel, viewing side, etc.

- C. Information appearing on the DVD must be continuous and run simultaneously by computer generated transparent digital information. No editing or overlaying of information at a later date will be acceptable.
- D. Digital information to appear in the upper left corner shall be as follows:
  - 1. Name of Contractor.
  - 2. Day, date, and time.
  - 3. Name of Project & Specification Number
- E. Time must be accurate and continuously generated.
- F. Written documentation must coincide with the information on the DVD so as to make easy retrieval of locations sought for at a later date.
- G. The video system shall have the capability to transfer individual frames of video electronically into hard copy prints or photographic negatives.
- H. Audio shall be recorded at the same time as the video recording and shall have the same information as on the viewing screen. Special commentary shall be given for unusual conditions of buildings, sidewalks, curbs, foundations, trees, shrubbery, structures, equipment, and pavement, etc.

END OF SECTION

**SECTION 01700**

**CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

1.1 The following forms and related sign-offs shall be documented in accordance with provisions of the contract. These forms shall be completed by the Contractor and approved by the Owner before final retainer is approved for release. Forms for Items A-E will be attached to the Contractor's executed copy of the contract.

- A. Certificate of Substantial Completion (To be submitted at time of Substantial Completion)
- B. Contractor's Certification of Completion
- C. Contractor Affidavit of Prevailing Wage
- D. Consent of Surety Company for Final Payment
- E. Affidavit of Final Acceptance Date and Correction Period
- F. Certificate of insurance verifying completed operations insurance coverage.
- G. Contractor Affidavit of Record Drawing Submittal.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 02200

### EARTHWORK FOR UTILITIES

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. General: Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 1 specification sections, apply to this section.

##### 1.2 SUMMARY

- A. This section includes granular bedding, initial backfill, rock excavation, dewatering, excavation, backfilling, disposal, and field quality control for installation of utilities.

##### 1.3 REFERENCE STANDARDS

- A. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort.
- B. Ohio Department of Transportation, Construction and Materials Specifications, (ODOT CMS) latest edition.

##### 1.4 SITE PROTECTION

- A. Protect bench marks, survey points, and reference points as required.
- B. When traffic is maintained over backfilled excavations before the pavement is placed, maintain the surfaces in a manner to eliminate hazards and minimize inconvenience to vehicles.
- C. Provide emergency roadway maintenance service twenty-four (24) hours per day, including Saturdays, Sundays, and Holidays. Provide the Owner and Engineer with a telephone number and address of a contact person that may be contacted any time between the start and completion date of the project. Should the Contractor not be reached, or if he does not repair work promptly when required, the Owner will make the necessary repairs at the Contractor's expense.
- D. Pile all excavated material in a manner that will not endanger the work nor obstruct walks and driveways. Keep hydrants, valves, manhole covers, inlets, or other utility controls unobstructed and accessible at all times. Keep gutter and drainage ditches clear, or make other satisfactory provisions for street drainage; do not obstruct natural water courses.
- E. Provide all necessary temporary barricades, danger signs, warning signs, etc. and install at the work site in accordance with the applicable provisions of the ODOT Manual of Uniform Traffic Control Devices.

##### 1.5 ENVIRONMENTAL REQUIREMENTS

- A. Do not permit silt from construction operations to enter the storm sewer system.

- B. Ensure that extraneous material, such as construction debris, roots, trash, oil, or other contaminated soil, is not used in backfill or earthwork operations.
- C. Open burning of material shall not be permitted on-site.

#### 1.6 EXISTING CONDITIONS

- A. The elevations of the existing ground shown on the Drawings are believed to be reasonably accurate, but are not purported to be absolutely so; verify all elevations prior to beginning the Work.

### PART 2 PRODUCTS

#### 2.1 MATERIALS

- A. Pipe Bedding & Initial Backfill
  - 1. State of Ohio, Department of Transportation, Construction and Material Specifications, Item 703.11 – Structural Backfill, Type 3.
    - a. Only limestone will be permitted for this item.
- B. Final (Granular) Backfill
  - 1. State of Ohio, Department of Transportation, Construction and Material Specifications, Item 304 – Aggregate Base
    - a. Only limestone will be permitted for this item.
- C. Earth Backfill
  - 1. Fine sand, clayey gravel, sand-clay, silty clay, clay (soil types GM, GC, MH, ML, CH)
  - 2. Excavated materials.
- D. Unsuitable Material
  - 1. Organic soils (soil types OL, OH, PT).
  - 2. Rocks larger than three (3) inches in any dimension.
  - 3. Bricks and building debris.
  - 4. Frozen material.

### PART 3 EXECUTION

#### 3.1 PREPARATION

- A. Identify and locate known underground utilities; uncover utilities prior to approach of excavation in order to have advance warning of potential conflicts in elevation or alignment.
- B. Stockpile existing topsoil and replace upon final grading. Additional topsoil may be necessary to replace minimum of six (6) inches or to replace to original depth.
- C. Stake alignment of sewer and the proposed location of all services, manholes, fittings, etc. prior to beginning excavation.

### 3.2 DEWATERING

- A. Remove water from all excavations while the construction of structures, conduits, or foundations are in progress; provide dams, sumps, bulkheads, underdrains, pumping equipment, and temporary conduit of sufficient capacity and keep in operation.
- B. Provide for the disposal of all water removed from the excavations in such a manner as to prevent injury to the public, damage to public or private property, or any portion of the work completed or in progress.
- C. Lay no pipeline, conduit, or structure in water and do not allow flow to rise upon any concrete until the work has set for at least twenty-four (24) hours; permit no water to enter or flow through a pipeline or conduit during construction.
- D. Maintain the flow of water or sewage in exiting sewers, drains, gutters, or water courses encountered during construction.

### 3.3 TRENCHING

- A. General
  - 1. Trench excavation shall follow lines and grades as indicated on the Drawings. Exact positions shall be subject to and adjusting to inferences with other Work.
  - 2. Leave trenches open until work is inspected.
  - 3. Whenever existing items such as sewer pipes, storm drains, field tile, water pipes, gas mains, culverts, or other pipes or structures are encountered on or near the lines of trenches being excavated, proper care in preserving such items intact, and repair any damage to such items due to failure to exercise sufficient care at no additional cost to the Owner.
  - 4. Locate all existing utilities or other structures of critical location in advance of excavation.
  - 5. Uncover existing pipes and cables ahead of trenching for new Work.
- B. Excavation and Pipe Bedding
  - 1. Sanitary Sewers
    - a. Trench shall be excavated six (6) inches below bottom of pipe.
    - b. Pipe shall be laid in pipe bedding material which will cradle the bottom third (120 deg.) of the pipe.
    - c. Place pipe bedding material above the pipe and both sides of pipe to a depth of twelve (12) inches above the top of the pipe and compacted in layers not to exceed six (6) inch loose lift thickness with mechanical tampers.
  - 2. Manhole Pits
    - a. Excavate to the depth required, and provide solid base for construction.
- C. Backfill
  - 1. Under and within the zone of influence (as detailed on the plans) of roads, walks, and other paved areas, trenches and pits shall be backfilled to sub-grade with granular backfill compacted in eight (8) inches loose lifts.
  - 2. Elsewhere, backfill with granular backfill or earth backfill. Top six (6) inches shall be topsoil.
  - 3. Unsuitable backfill shall not be used.
  - 4. Dispose of excess excavated material off the site.

D. Compaction

1. In the course of backfilling trenches, the Contractor is required to employ an independent qualified testing firm to perform compaction or field density testing. Three (3) copies of the testing results shall be submitted from the testing firm directly to the Owner.
  - a. Minimum testing shall be at least one (1) test/100 L.F. of each lift of backfill; subgrade and/or subbase shall be at least be one (1) test/200 L.F. of each lift; subject to greater frequency at Engineers direction.
2. Minimum compaction limits shall be as follows:
  - a. Beneath and within twenty-five (25) feet of buildings - 98% of maximum dry density by ASTM D698 within 4% of optimum moisture content.
  - b. Areas under roadway, paved surfaces, shoulders, sidewalks, curbs, etc. - 95% of maximum dry density by ASTM D698 within 4% of optimum moisture content.
  - c. Under turf, sodded, planted, and non-traffic areas - 90% of the maximum dry density by ASTM D698 within 4% of optimum moisture content.

3.4 FINAL GRADING

- A. Grade excavated areas to be consistent with pre-construction topography for drainage and aesthetic reasons. Rough grading of excavated areas to be done at the end of every day. Final grading and seeding shall be done within seven (7) days of the issuance of the certificate of substantial completion.

3.5 DISPOSAL

- A. Haul any excess materials from excavations, not required or suitable for backfill to a location offsite that is acceptable to the Owner.
- B. Leave surfaces of all spoil areas smooth, level, and evenly sloped for proper drainage and free from stone rubbish and other debris.
- C. Secure written agreements for disposal of spoil on private property from property owner, listing all terms and conditions in the agreement.

END OF SECTION

## SECTION 02240

### EXCAVATION SUPPORT

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

##### 1.2 SUMMARY

- A. This section includes temporary excavation support and protection systems.

##### 1.3 PERFORMANCE REQUIREMENTS

- A. Design, furnish, install, monitor, and maintain excavation support and protection system capable of supporting excavation sidewalls and of resisting soil and hydrostatic pressure and superimposed and construction loads.
  - 1. Provide professional engineering services needed to assume engineering responsibility, including preparation of shop drawings and comprehensive engineering analysis by a qualified professional engineer.
  - 2. Prevent surface water from entering excavations by grading, dikes, or other means.
  - 3. Install excavation support and protection systems without damaging building, pavement, and other improvements adjacent to excavation.

##### 1.4 DEFINITIONS

- A. **Lagging:** A temporary or permanent excavation support structure consisting of heavy timber boards, planking, sheathing, or reinforced precast concrete planks secured in place by steel H-piles.
- B. **Proof Load:** An applied load 25 percent greater than the design load imposed by load test.
- C. **Sheeting:** A line of timber or planks, plain or tongue and grooved on sides, driven endwise into the ground to protect subgrade operations.
- D. **Sheet Piling:** Interlocking steel sheet piling installed vertically to hold back earth or retain soil and to keep water out of a foundation excavation. May be temporary or permanent structure.
- E. **Shores/Shoring:** Props or posts of timber or other material in compression, used for temporary support of excavations.
- F. **Side Rail Shoring System:** Slide-Rail Systems are modular, high-capacity shoring systems that are typically used in areas poor soil conditions exist. Double-walled steel panels slide into tracked rails as earth is excavated allowing for minimum soil movement or loss of support. Slide rail systems are predominantly used in areas where loose sandy or structurally unstable soils exist. Full depth trench support is maintained during

excavation and backfill operations by means of placing or removing individual panels as the depth of excavation and backfill operations by means of placing or removing individual panels as trench depth changes.

- G. Soldier Piles: Vertical steel H-piles installed to take the side thrust. Also called soldier beams.
- H. Strut: A brace or supporting member which resists thrusts in the direction of its own length; may be vertical, horizontal, or diagonal.
- I. Waller: A horizontal beam used to brace or support vertical sheeting or sheet piling.

## 1.5 DESIGN CRITERIA

- A. Design excavation support systems to support earth pressures, utility loads, equipment, applicable traffic and construction loads, and other surcharge loads in a manner which will allow the safe and expeditious construction of permanent structures without moving or settlement of the ground and in a manner which will prevent settlement of and damage to, or movement of, adjacent buildings, structures, utilities, or other facilities during the various stages of construction. Include evaluation of the effects of dewatering and flooding excavation.
- B. Design each component to support the maximum loads which may occur during various stages of construction. Include lateral pressure due to earthquake. For the purpose of this Section, the design load means the maximum load the support member will have to carry in actual practice, and the proof load means a specified test load greater than the design load.
- C. Support of excavation structures shall be analyzed for all conditions which may occur during the various stages of construction. Among others, these conditions include: installation, relocation and removal of struts; flooding and dewatering of excavations; and concreting of excavation bottom. The loading conditions on opposite sides of a cut may not be equal. In this case, both sides shall be designed for and be compatible with the larger loading. The conditions to which the design applies shall be indicated on the Shop Drawings.
- D. Carry the bottom of support system to a depth below the main excavation as adequate to prevent lateral and vertical movement. Where additional excavation is carried below the main excavation, provide means to prevent movement of the main excavation supports.
- E. Design the excavation support system to allow the required free excavated space for workers, concrete formwork, wall waterproofing, and drainage systems.
- F. Design excavation support systems for staged installation and removal to conform to construction and backfill sequences as indicated. Leave excavation support systems in place, except as specified otherwise herein or in the Contract Specifications.
- G. Employ walers and struts for horizontal support as required for excavation faces to be retained by sheet piles. Provide struts with intermediate vertical and horizontal supports as required to prevent buckling. Struts shall be preloaded by wedging or jacking to 50 percent of the design.

H. Provide diagonal bracing where needed for stability of the system.

## 1.6 SUBMITTALS

- A. Shop Drawings and calculations: Submit Shop Drawings and supporting calculations for excavation support systems.
1. Include Shop Drawings signed and sealed by the qualified professional engineer.
- B. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by the absence of, the installation of, or the performance of excavation support protection systems.

## 1.7 SITE CONDITIONS

- A. Provision for Contingencies:
1. Monitor performance of components of excavation support systems, both for vertical and horizontal movement, at regular intervals.
  2. Provide and secure approval for a contingency plan, or alternative procedure, to be implemented in the event of an unfavorable performance of the system.
  3. Have materials and equipment available to implement the approved contingency plan.
- B. Existing Utilities:
1. Proceed with caution in areas of utility facilities and structures. Expose existing utilities by hand-excavation or by other methods acceptable to the utility owner.
  2. If existing utility facilities and structures interfere with proposed method of excavation support, modify or relocate such facilities in accordance with the utility owner's recommendation.
- C. Loads:
1. Lateral loads shall not be transferred to new concrete structures by removal of excavation support systems until the new structure has attained its 28-day compressive strength, or except as otherwise indicated.

## 1.8 SUBMITTAL

- A. Product Data: Submit manufacturer's technical data and application instructions.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. General: Provide materials that are either new or in serviceable condition.
- B. Structural Steel: ASTM A36/A36M
- C. Steel Sheet Piling: ASTM A328/A328M with continuous interlocks.

- D. Slide Rail Systems: Pre-engineered excavation support system as design and supplied by Efficiency Production, Inc., United Rentals, or approved equivalent.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION REQUIREMENTS**

- A. Install excavation support systems for safety and preservation of existing improvements. Excavation support systems shall consist of structures designed by the Contractor to support the various excavations.
- B. Construct support systems in accordance with approved Shop Drawings and in a manner that will ensure that supported faces will be stabilized. Provide for additional soil pressure caused by adjacent surcharge loads.
- C. No part of the excavation support systems that will remain permanently in place shall be placed or allowed to deflect within the limits of permanent structures.
- D. Piles and vertical members of excavation support systems shall be within 1.0 percent of plumb.
- E. Do not use combustible waste or similar material for packing or soil retention in excavations.

#### **3.2 INSTALLATION OF SHEET PILING**

- A. Drive or vibrate sheet piles in plumb position, with each pile interlocked with adjoining pile for its entire length so as to form a continuous diaphragm throughout the length of each run of wall.
- B. Provide driving method so that interlocking members can be extracted, if required, without injury to adjacent fills.
- C. Do not drive piles within 100 feet of concrete less than seven (7) days old.

#### **3.3 INSTALLATION OF SLIDE RAIL SHORING SYSTEM**

- A. Install parallel beams, rails, and posts in linear bays in accordance with the suppliers'/manufacturer's recommendations.
- B. Install one panel in each of the outside slotted rails in both linear posts. Note: It may be necessary to either push these posts into bottom of excavation by standing perpendicular or to hold them in place with a second machine to aid in the installation of these first two panels. Position the ends of the panels the proper distance apart to receive the next post and spreader assembly.
- C. After making sure the system is in the desired location and that the posts are perpendicular, backfill outside the panels to secure the system and its position.
- D. Install additional panels as excavation progresses. Continue with the excavation/pushing sequences until the desired depth of excavation is reached.

- E. Add additional bays and panels to outside of first bay. Repeat the excavation and pushing sequences until the desired number of bays is installed.
- F. Slide rail shoring system shall be installed and removed in strict accordance with the supplier's design and recommendations.

#### 3.4 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
  - 1. Shores, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
  - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- C. Locate excavation support and protection systems clear of permanent construction so that forming and finishing of concrete surfaces is not impeded.
- D. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.

#### 3.5 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.
  - 1. Repair or replace, as approved by Engineer, adjacent work damaged or displaced by removing excavation support and protection systems.
- B. Leave excavation support and protection systems permanently in place.

END OF SECTION

**SECTION 02610**  
**DUCTILE IRON MAINS**

**PART 1 GENERAL**

**1.1 Related Documents**

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

**1.2 DESCRIPTION OF WORK**

- A. The Contractor shall furnish all the materials for and shall properly place at the locations shown on the drawings or as directed, all ductile iron pipe of the sizes specified, shown or required for the proper completion of the work included under this contract.

**1.3 QUALITY ASSURANCE**

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.

**1.4 SUBMITTALS**

- A. Manufacturer's Literature. Provide manufacturer's literature on all supplied materials.
- B. Certification. Submit certification of compliance with the referenced standards.
- C. Test Reports. Submit description of proposed testing methods, procedures, and apparatus.

**1.5 REFERENCE SPECIFICATIONS**

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
- B. American Association of State Highway and Transportation Officials
  - 1. AASHTO M43 - Standard Size of Course Aggregate for Highway Construction.
- C. American Society for Testing and Materials:
  - 1. ASTM A536 - Standard Specifications for Ductile Iron Castings.
  - 2. ASTM A575 - Standard Specifications for Steel Bars, Carbon, Merchant Quality, M-Grades.
- D. American Water Works Association:

1. AWWA C104 - Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water.
2. AWWA C105 - Standard for Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids.
3. AWWA C110 - Standard for Ductile Iron and Grey-Iron Fittings.
4. AWWA C111 - Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
5. AWWA C151 - Standard for Ductile Iron Pipe, Centrifugally Cast, for Water and Other Liquids.

E. American National Standards Institute:

1. ANSI B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.

## 1.6 COORDINATION OF WORK

- A. Connection to existing pipelines may require shutdown of Owner's facilities. Construction work and connections shall be closely coordinated with the Owner. The Owner, may select the time, including Saturdays, Sundays, or legal holidays, which will cause the least inconvenience to the Owner and/or his customers, for connection to existing pipelines, and the Contractor will perform such connections at such times as may be directed by the Owner at the Contract prices. No claim for premium time or additional cost will be made by the Contractor.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Inspect all piping for damage immediately upon delivery to the site.
- B. Pipe, fittings, and accessories that are cracked, damaged, in poor condition, or have damaged linings will be rejected.
- C. Store pipe and fittings on heavy wood blocking or platforms to avoid contact with the ground.
- D. Unload pipe, fittings, and specials in designated laydown areas. Keep interiors completely free of dirt and foreign matter.
- E. Handle all pipe, fittings, and accessories carefully using proper handling devices. Materials that have been cracked, gouged, chipped, dented, or otherwise damaged will be rejected.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. All ductile iron pipe shall conform to the requirements of AWWA C151.

- B. The chemical constituents shall meet the physical property recommendations for ASTM A536 to ensure that the iron is suitable for satisfactory drilling and cutting.
- C. Unless otherwise shown, the minimum thickness of the barrel of pipe shall be Class 52 for pipe sizes 3"-24".

## 2.2 COATING AND LINING

- A. The pipe shall be coated outside with a bituminous coating in accordance with AWWA C151. If this coating material is found to be damaged prior to the pipe trench being backfilled, the Contractor shall provide and apply additional material of that required to repair the damages.
- B. The interior of the pipe shall be lined with cement mortar and seal coated in complete conformance with AWWA C104.

## 2.3 JOINTS

- A. Mechanical and Push-On: Mechanical and push-on joints including accessories shall conform to AWWA C111.
- B. Flanged joints shall conform to AWWA C110 for fittings and AWWA C115 for pipe. Flanged joints shall not be used in underground installations except within structures. All flanged joints shall be furnished with a one sixteenth (1/16) inch thick, red rubber or styrene butadiene rubber gasket, bolts having American Standard Heavy Unfinished Hexagonal Head and Nut dimensions in conformance with ANSI B18.1, and material for bolts and nuts shall conform to ASTM A575.

## 2.4 FITTINGS

- A. All standard fittings shall be ductile iron conforming to AWWA C110. Compact fittings shall not be used unless specifically designated on the plans or as directed by the Engineer. Compact fittings shall conform to AWWA C153.
- B. Fittings for pipe sizes twelve (12) inch diameter and smaller shall be rated for 250 psi working pressure, and fittings for pipe sizes 14 inch diameter and larger shall be rated for 150 psi working pressure in accordance with AWWA C110. Fittings for higher working pressures will be noted on the plans.

## 2.5 POLYETHYLENE ENCASEMENT

- A. Unless otherwise noted, all ductile iron mains not located in structures shall be encased with 8-mil polyethylene film conforming to AWWA C105.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. All trenches, when pipe laying is in progress, shall be kept dry and all pipes and specials shall be laid accurately to the required lines and grades and shall be uniformly supported

along their entire lengths. The bottom of the excavation shall be properly trimmed, with holes at each joint to receive the bell and to permit the properly cementing the joints.

- B. Pipe shall be fully entered and shall abut against adjacent pipe and in such a manner that there will be no unevenness along the inverts.
- C. When pipes enter or pass through concrete walls, manholes, sewers or other structures, holes shall be provided and the pipes properly cemented in place so as to form a watertight joint.

**END OF SECTION**

## SECTION 02620

### DUCTILE IRON PIPE JOINTS

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. The installation of all piping, fittings, valves, hydrants, etc. in the performance of pipeline construction work shall include the making of one or more types of pipe joints as specified herein.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.
- B. In addition to the requirements of these specifications, comply with manufacturer's instructions and recommendations for work.

##### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data and application instructions.

#### PART 2 PRODUCTS

NONE

#### PART 3 EXECUTION

##### 3.1 PUSH-ON TYPE JOINTS

- A. Push-on type of joints for cast iron and ductile iron pipe shall be made where shown on the plans and as specified herein in strict accordance with the manufacturer's recommendations.
- B. No more than one joint at a time shall be "pushed home". In the event that two (2) or more joints are "pushed home" simultaneously, the Contractor shall remove all pipe which was not pushed home "one at a time" and remove and discard the "used" gaskets and relay the pipe "one at a time".
- C. Rubber gaskets shall be a rubber O-ring type shaped to fit the particular inside configuration of the bells of the pipe being installed and shall produce a leak-free piping system.

- D. Immediately prior to assembly, thoroughly clean all pipe surfaces which the rubber gasket contacts, insert the gasket properly and lubricate the joint surfaces.
- E. All ends shall be beveled and square to the pipe barrel and shall be kept in a straight and square alignment to the receiving bell during assembly.
- F. No payment will be made for the gasket or lubricant used, but the cost thereof shall be included in the unit price bid for compression joint cast iron and/or ductile iron pipe and fittings.

### 3.2 FLANGED JOINTS FOR CAST IRON/DUCTILE IRON PIPE AND FITTINGS

- A. All flanged joints shall be thoroughly bolted with through, stud or tap bolts of required size. Full face type rubber gaskets of an approved quality shall be used in all flanged joints. All bolt heads and nuts shall conform in dimensions to the American Standard heavy series and nuts shall be hexagonal cold pressed with well-fitting threads. Bolts and nuts shall be cadmium plated by and approved process with a plate thickness of 0.0003 to 0.0005 inches. In lieu of cadmium plating, galvanizing will be acceptable. All studs shall be made from silicon bronze ASTM B124 with bronze nuts where used in contact with any liquid or buried underground or as called for on the contract drawings.

### 3.3 MECHANICAL JOINTS

- A. All mechanical joints shall be thoroughly bolted in accordance with the manufacturer's recommendations with cadmium plated tee head bolts and nuts of high strength, heat treated cast iron or other approved materials having a minimum yield strength of forty-five thousand (45,000) pounds per square inch and an ultimate tensile strength of seventy thousand (70,000) pounds per square inch. Gaskets for sludge, gas, waste lines, etc., shall be plain rubber gaskets coated with ASTM D2000, Type SA-710, or equal. Gaskets for water service shall be plain rubber gaskets made of first grade plantation rubber in accordance with ANSI A21.11. Glands shall be of high strength cast/ductile iron.
- B. Where connections are made between wrought iron pipe and mechanical joints, an approved type of transition gasket and fitting shall be used in the mechanical joint in accordance with the manufacturer's standards and recommendations.
- C. All job cut pipe ends shall be ground, filed or otherwise properly worked on so as to be both square to the pipe barrel and beveled similar to factory finished pipe ends. There shall be no burrs or any other part of the cut pipe end.
- D. Join bolts shall be tightened by the use of approved wrenches and to a tension recommended by the pipe manufacturer. Overstressing of bolts to compensate for poor installation practice shall not be permitted.
- E. Any excessively deflected "preassembled pipe" shall be disassembled, the gaskets discarded, and the pre
- F. Where joints are underground, bolts and nuts shall be stainless steel Type 316.
- G. Where shown on the drawings, or ordered, mechanical joints shall be provided with approved harnesses to affect tied joints.

- H. No special payment will be made for lock type joints, glands, bolts, nuts, or gaskets used for mechanical joints, but the cost thereof shall be included in the unit price bid for mechanical joint cast/ductile iron pipe and mechanical joint cast/ductile iron fittings.
- I. Approved harnesses to affect tied joints will be paid for as a part of their respective pipeline construction.

#### 3.4 RESTRAINED JOINTS

- A. Pipe restraint where called for on the plans or as directed by the engineer shall be achieved by use of EBBA Iron's Mega Lug Restraint System or Engineer approved equivalent. The restraint is against separation due to external force or from internal pressure.
- B. Boltless restrained joints shall be used where called for on the drawings or as directed by the Engineer to provide restraint against external forces or against separation due to internal pressure.
- C. Types of boltless restrained joints acceptable are "Super-Lock" by Clow Corporation, "IK-Flex" by US Pipe and Foundry Company, or approved equal.

END OF SECTION

## SECTION 02680

### GATE VALVES (DOMESTIC WATER)

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. General: The Contractor shall provide all labor, tools, equipment, and materials necessary to furnish and install gate valves in accordance with the plans and as specified herein.
- B. The Contractor shall furnish all bolts, nuts, washers, gaskets, and equipment necessary to properly install valves specified herein.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.
- B. Each valve shall be subjected to operation and hydrostatic tests at the manufacturer's plant as specified within applicable AWWA Standards.

##### 1.4 SUBMITTALS

- A. Furnish manufacturer's product data, shop drawings, and material certification as required.
- B. Operation and maintenance manual including storage, installation, start-up, operating, and maintaining instructions, and a complete spare parts list.

##### 1.5 REFERENCE SPECIFICATIONS

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
- B. American Water Works Association:
  - 1. AWWA C509 - Resilient Seated Gate Valves for Water Supply Service
  - 2. AWWA C550 - Protective Interior Coatings for Valves and Hydrants

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. Valve bodies shall be of either gray or ductile cast iron and shall have the name, monogram, or initials of the manufacturer cast thereon.**
- B. Valves shall have non-rising stems, open by turning left or counter-clockwise and be provided with either a 2-inch square nut for buried valves or handwheel for exposed valves unless otherwise noted. The direction of opening shall be indicated by an arrow cast on the body and/or the actuator.**
- C. All body bolts and nuts shall be bronze or stainless steel for buried, submerged, or non-protected applications and cadmium plated for exposed or interior applications that will receive protective finish coatings.**

### **2.2 MANUFACTURER**

- A. Valves shall be as manufactured by Mueller, or approved equal.**

### **2.3 GATE VALVES**

- A. The valves described in this section shall be resilient seated gate valves manufactured to meet or exceed AWWA C509. Valves shall be of compression type seal design, providing bubble tight shut-off with bi-directional seating ability for pressures up to 200 psi.**
- B. The valve shall have a smooth, unobstructed waterway free from any sedimentation pockets.**
- C. Body style shall be mechanical joint type for buried service, or flange joint type for exposed service and when required.**
- D. Stuffing boxes shall be O-ring seal type with two (2) rings located in steam above thrust collar.**
- E. Thrust bearings shall be of the low friction torque reduction type, located both above and below the steam collar.**

### **2.4 OPERATORS**

- A. Valves shall be equipped with nut, gears, and other appurtenances as required for the manual operation as specified.**
- B. Operation shall be designed so that the effort required operating the handwheel or lever shall not exceed 25 lbs. applied at the extremity of the wheel or lever.**
- C. Handwheels on valves four (4) inches and larger shall not be less than twelve (12) inches in diameter.**
- D. Wrench nuts shall be cast iron or bronze, two (2) inches square at the base and 1-3/4 inches high with a flanged base.**

1. Provide one (1) tee wrench for each valve type used and of each significant length differential required. All wrenches supplied shall be a length so that the bar handle extends approximately three (3) feet above finished grade in addition to the required bury depth lengths.

## 2.5 PROTECTIVE COATINGS

- A. All iron parts of valve assemblies shall be painted before leaving the shop.
- B. All external and internal waterway ferrous surfaces of each valve, except finished or bearing surfaces shall be shop painted with a liquid or powder epoxy coating of approximately 10 mils dry film thickness conforming the AWWA C550.

## 2.6 VALVE BOXES

- A. Valve boxes shall be cast iron three-piece screw type, adjustable boxes. The top section to have a drop lid of which to be marked for service which it is used cast thereon. Cover and boxes shall be a round pattern.
- B. Provide proper base size and shape to straddle the valve bonnet without touching or being supported by the valve mechanism. Use No. 6 base size for 6-inch and 8-inch gate valves or typical butterfly valve operators, No. 160 oval base size for 12-inch and larger gate valves or other size necessary to suit a particular valve manufacturer's requirement.
- C. Extension sections shall be provided where the depth of trench is such that they are needed to bring the top of the box to finished grade. The valve box shall be installed so that it is perfectly vertical and centered on the valve operating nut.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Valves shall be carefully handled and placed so as not to permit any damage to the interior coatings, disc, or seat. Internal type lifting devices shall not be permitted. Do not use handwheels or stems as lifting or rigging points.
- B. All valves shall be carefully installed in their respective positions free from distortion and stress. Connecting joints shall conform to applicable requirements of the specifications.
- C. Stem guides shall be accurately aligned.
- D. If the valve box is tipped or otherwise not centered on the valve operating nut or not installed at the proper elevation, the Contractor shall, as his own expense, make whatever correction is required to remedy the defect promptly, upon notice to do so by the Engineer.

### 3.2 TESTING

- A. All valves shall be tested in place by the Contractor as far as practicable under conditions for the pipelines, in which they are placed, and defects revealed in valves or connection

under test shall be corrected at the expense of the Contractor to the satisfaction of the Engineer.

**END OF SECTION**

## SECTION 02690

### MOLECULARLY ORIENTED POLYVINYL CHLORIDE PIPE (PVCO) (WATER)

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. The Contractor shall furnish all the materials for and shall properly place at the locations shown on the drawings or as directed, all PVCO pipe of the sizes specified, shown or required for the proper completion of the work included under this contract.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.

##### 1.4 SUBMITTALS

- A. Product Data: Provide manufacturer's technical data and application instructions.

##### 1.5 REFERENCE SPECIFICATIONS

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
  1. ASTM D1784-11 – Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
  2. ASTM D2774-12 – Standard Practice for Underground Installation of Thermoplastic Pressure Piping.
  3. ASTM D3139-98 – Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
  4. ASTM F477-14 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
  5. ASTM F1483-15 – Standard Specification for Oriented Poly (Vinyl Chloride), PVCO, Pressure Pipe.

6. AWWA C909-16 – Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, 4 Inches and Larger.
7. CSA B137.3.1 – Molecularly Oriented Polyvinyl Chloride (PVCO) Pipe for Pressure Applications.
8. NSF/ANSI 61 – Drinking Water System Components – Health Effects.

## 1.1 COORDINATION OF WORK

- A. Connection to existing pipelines may require shutdown of Owner's facilities. Construction work and connections shall be closely coordinated with the Owner. The Owner, may select the time, including Saturdays, Sundays, or legal holidays, which will cause the least inconvenience to the Owner and/or his customers, for connection to existing pipelines, and the Contractor will perform such connections at such times as may be directed by the Owner at the Contract prices. No claim for premium time or additional cost will be made by the Contractor.

## 1.2 WARRANTY

- A. The pipe manufacturer shall provide a warranty against manufacturing defects of materials and workmanship for a period of ten years after the final acceptance of the project by the Owner. The manufacturer shall replace at no expense to the Owner any defective pipe/fitting material including labor within the warranty period.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. Materials shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water, wastewater, and reclaimed water systems as applicable. PVC starting stock pipe shall be made as defined in ASTM D1784.
- B. PVCO pipe shall meet the requirements of AWWAC909 and ASTM F1483. PVCO Pipe used for watermains shall meet the requirements specified in NSF/ANSI 61.
- C. If rework compounds are required, only those generated in the manufacturer's own plant from resin compounds of the same class and type from the same raw material supplier shall be used.
- D. Dimensions and workmanship shall be as specified by ASTM D1784. PVCO pipe shall be manufactured with cast-iron-pipe outside diameters (CIOD), which is equal to ductile - iron-pipe outside diameters (DIOD). Pipe walls shall meet minimum thickness requirements for AWWA C909 and CSA B137.3.1. All PVCO pipe and fittings shall have a Hydrostatic Design Basis of 7,100 psi.
- E. PVCO pipe and accessories 4 inch and larger shall have a pressure class of 235 psi.
- F. The pipe manufacturer shall certify compliance with the above requirements.

## 2.2 JOINTS AND FITTINGS

- A. Bell and spigot type joints, including their respective appurtenances, shall conform to ASTM D3139. Elastomeric gaskets shall be furnished with each bell end of every pipe. Gaskets shall be in accordance with ASTM F477. Pipe ends shall be capped at the production facility prior to storage and shipping.

## 2.3 PIPE IDENTIFICATION

- A. The following shall be continuously indent printed on the pipe or spaced at intervals not exceeding 5 feet:
  1. Nominal size in inches and OD base [for example, 4 DI (ductile iron)].
  2. PVCO.
  3. AWWA pressure class (for example, PC 165).
  4. Test pressure for hydrotested pipe (for example, T330), or if not tested, "NOT HYDROSTATIC PROOF TESTED."
  5. AWWA designation number for this standard (ANSI/ AWWA C909).
  6. Manufacturer's name or trademark and production run record or lot code, to include date of starting stock extrusion and the date the finished pipe is expanded.
  7. Seal (mark) of the testing agency that verified the suitability of the pipe material for potable water service (Sec. 4.2.4).
  8. The words "Do Not Use Solvent Cement."

## 2.4 TRACING WIRE

- A. Open trench PVCO shall have a #12 AWG copper conductor within a 45 milHDPE jacket. Wire shall be rated for 600 volts.

## PART 3 EXECUTION

### 3.1 JOINING METHOD

- A. PVCO pipe that is used for the forcemain shall be joined by means of integral-bell elastomeric-gasket joints conforming to ASTM D3139. Spigot ends shall be chamfered by the manufacturer.

### 3.2 INSTALLATION

- A. PVCO pipe shall be installed in accordance with the instruction of the manufacturer, as shown on the Drawings and as specified herein.
- B. PVCO shall be installed by open trench.
- C. Care shall be taken in loading, transporting, and unloading to prevent damage to the pipe. Pipe or fitting shall not be dropped. All pipe or fitting shall be examined before

installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer.

- D. Under no circumstance shall the pipe or accessories be dropped into the trench.
- E. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables, or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
- F. Pipe shall be laid to lines and grade shown on the Drawings with bedding and backfill as shown on the drawings.
- G. All trenches, when pipe laying is in progress, shall be kept dry and all pipes and specials shall be laid accurately to the required lines and grades and shall be uniformly supported along their entire lengths. The bottom of the excavation shall be properly trimmed, with holes at each joint to receive the bell.
- H. Pipe shall be fully entered and shall abut against adjacent pipe and in such a manner that there will be no unevenness along the inverts.
- I. When pipes enter or pass through concrete walls, manholes, sewers, or other structures, holes shall be provided and the pipes properly cemented in place so as to form a watertight joint.
- J. Installation shall conform to ASTM D2774.

**END OF SECTION**

## SECTION 02700

### HIGH DENSITY POLYETHYLENE PIPE (HDPE) (FORCEMAIN)

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. The Contractor shall furnish all the materials for and shall properly place at the locations shown on the drawings or as directed, all high-density polyethylene pipe of the sizes specified, shown or required for the proper completion of the work included under this contract.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.

##### 1.4 SUBMITTALS

- A. Manufacturer's Literature. Provide manufacturer's literature on all supplied materials.
- B. Certification. Submit certification of compliance with the referenced standards.
- C. Test Reports. Submit description of proposed testing methods, procedures, and apparatus.

##### 1.5 REFERENCE SPECIFICATIONS

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
  1. AWWA C906 - Polyethylene (PE) pressure Pipe & Fittings, 4 inch through 63 inch for water.
  2. ASTM D3035 - Standard Specifications for PE Pipe (DR-PR) Based on Controlled Outside Diameter.
  3. ASTM D3261 - Standard Specifications for Butt Heat Fusion PE Fittings for PE Pipe & Tubing.
  4. ASTM D3350 - Standard Specifications for PE Pipe and Fittings Materials.
  5. ASTM D1238 - Standard Specifications for Melt Flow Index.

6. ASTM D1505 - Standard Specifications for Density of Plastics.
7. ASTM D2837 - Standard Specifications for Hydrostatic Design Basis.
8. ASTM F2620 - Standard Practice for Heat Fusion Joining of PE Pipe and Fittings.

#### 1.6 COORDINATION OF WORK

- A. Connection to existing pipelines may require shutdown of Owner's facilities. Construction work and connections shall be closely coordinated with the Owner. The Owner, may select the time, including Saturdays, Sundays, or legal holidays, which will cause the least inconvenience to the Owner and/or his customers, for connection to existing pipelines, and the Contractor will perform such connections at such times as may be directed by the Owner at the Contract prices. No claim for premium time or additional cost will be made by the Contractor.

#### 1.7 WARRANTY

- A. The pipe manufacturer shall provide a warranty against manufacturing defects of materials and workmanship for a period of ten years after the final acceptance of the project by the Owner. The manufacturer shall replace at no expense to the Owner any defective pipe/fitting material including labor within the warranty period.

### PART 2 PRODUCTS

#### 2.1 MATERIALS

- A. Materials used for the manufacture of polyethylene pipe and fittings shall be made from PE4710.
- B. HDPE pipe shall meet the requirements of AWWA C906.
- C. If rework compounds are required, only those generated in the manufacturer's own plant from resin compounds of the same class and type from the same raw material supplier shall be used.
- D. Dimensions and workmanship shall be as specified by ASTM F714. HDPE fittings and transitions shall meet ASTM D3261. HDPE pipe shall have a minimum density of 0.955 grams per cubic centimeter. All HDPE pipe and fittings shall have a Hydrostatic Design Basis of 1,600 psi.
- E. HDPE pipe and accessories 4 inch and larger shall be 200 psi, DR-11 minimum strength.
- F. The pipe manufacturer shall certify compliance with the above requirements.

#### 2.2 MANUFACTURER

- A. All HDPE pipe and fittings shall be from a single manufacturer who is fully experienced, reputable, and qualified in the manufacture of HDPE pipe to be furnished. The pipe shall

be designed, constructed, and installed in accordance with the best practices and methods and shall comply with these specifications. Qualified manufacturers shall be: PLEXCO Division of Chevron Chemical Co., DRISCOPIPE as manufactured by Phillips Products Co. Inc., SCLAIRPIPE as manufactured by DuPont of Canada or equal.

### 2.3 FITTINGS

- A. All molded fittings and fabricated fittings shall be fully pressure rated to match the pipe pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the Engineer.
- B. The manufacturer of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or special required to perform the work as shown on the Drawings and specified herein.
- C. All fittings shall be installed using butt-fused fittings, thermos-fused fittings/couplings, or flanged adapters and must be approved by the Engineer. No size on size wet taps shall be permitted.
- D. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of the Engineer per the HDPE pipe manufacturer's recommendations and specifications. A molded flanged connector adapter within a carbon steel back-up ring assembly shall be used for pipe type transitions. Ductile iron back-up rings shall mate with cast iron flanges per ANSI B16.1. A 316 stainless steel backup ring shall mate with a 316 steel flange per ANSI B16.1.
  - 1. Transition from HDPE to ductile iron fittings and valves shall be approved by the Engineer before installation.
  - 2. No solid sleeves shall be allowed between such material transitions.
  - 3. Fittings and transitions shall be manufactured by Phillips DRISCOPIPE, Inc., 1000 Series Pressure Pipe, Chevron Chemical Company Plexco/Spiralite pipe, or equal.
  - 4. The pipe supplier must certify compliance with the above requirements.

### 2.4 PIPE IDENTIFICATION

- A. The following shall be continuously indent printed on the pipe or spaced at intervals not exceeding 5 feet.
  - 1. Name and/or trademark of pipe manufacturer
  - 2. Nominal pipe size
  - 3. Dimension ratio
  - 4. The letters PE followed by the polyethylene grade in accordance with ASTM D1248 followed by the hydrostatic design basis in 160's of psi, e.g. PE 4710.

### 2.5 TRACING WIRE

- A. Open trench and directionally drilled HDPE shall have a #12 AWG copper conductor within a 45 mil HDPE jacket. Wire shall be rated for 600 volts.

## PART 3 EXECUTION

### 3.1 JOINING METHOD

- A. HDPE pipe that is used for the forcemain shall be joined with butt, heat fusion joints outlined in ASTM D2657 and conform to ASTM F2620 - Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings. All joints shall be made in strict compliance with the manufacturer's recommendations. A factory qualified joining technician as designated by pipe manufacturer or experienced, trained technician shall perform all heat fusion joints.
- B. Lengths of pipe shall be assembled into suitable installation lengths by the butt-fusion process. All pipes so joined shall be made from the same class and type of raw material made by the same raw material supplier. Pipe shall be furnished in standard laying length not to exceed 50 feet and not shorter than 20 feet.

### 3.2 INSTALLATION

- A. HDPE pipe shall be installed in accordance with the instruction of the manufacturer, as shown on the Drawings and as specified herein. A factory qualified joining technician as designated by the pipe manufacturer shall perform all heat fusion joints.
- B. HDPE shall be installed by open trench.
- C. Care shall be taken in loading, transporting, and unloading to prevent damage to the pipe. Pipe or fitting shall not be dropped. All pipe or fitting shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer.
- D. Under no circumstance shall the pipe or accessories be dropped into the trench or forced through a directional bore upon "pull back".
- E. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables, or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
- F. Pipe shall be laid to lines and grade shown on the Drawings with bedding and backfill as shown on the drawings.
- G. Mechanical connections of the polyethylene pipe to auxiliary equipment such as valves, pumps and tanks shall be through flanged connections which shall consist of the following:
  - 1. A polyethylene flange shall be thermally butt fused to the stub end of the pipe.
  - 2. A 316 stainless steel backup ring shall mate with 316 stainless steel flange.
  - 3. A 316 stainless steel bolts and nuts shall be used.
- H. All HDPE pipe must be at the temperature of the surrounding soil at the time of backfilling and compaction.

END OF SECTION

## SECTION 02730

### POLYVINYL CHLORIDE PIPE (PVC) (GRAVITY SEWER)

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

##### 1.2 DESCRIPTION OF WORK

- A. The Contractor shall furnish all materials for and shall properly place at the locations shown on the drawings or as directed, all PVC pipe of the sizes specified, shown or required for the proper completion of the work included under this contract.

##### 1.3 QUALITY ASSURANCE

- A. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work.

##### 1.4 SUBMITTAL

- A. Product Data: Submit manufacturer's technical data and application instructions.

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. All PVC pipe used, as covered under this section, shall conform to ASTM D3034, with end being designated for one of the type joints as specified herein. PVC compounds shall conform to ASTM D1784.
- B. The minimum class for PVC pipe under this Item shall be SDR 35.
- C. Materials of construction, including joints and fittings, shall be suitable for exposure to raw sewage, and shall be UV stabilized with either 2% carbon black or titanium dioxide.

##### 2.2 JOINTS AND FITTINGS

- A. Bell and spigot type joints, including their respective appurtenances shall conform to ASTM D3212. Gaskets shall be in accordance with ASTM F477.

#### PART 3 EXECUTION

- A. All trenches, when pipe laying is in progress, shall be kept dry and all pipes and specials shall be laid accurately to the required lines and grades and shall be uniformly supported along their entire lengths. The bottom of the excavation shall be properly trimmed, with holes at each joint to receive the bell.

- B. Pipe shall be fully entered and shall abut against adjacent pipe and in such a manner that there will be no unevenness along the inverts.
- C. When pipes enter or pass through concrete walls, manholes, sewers, or other structures, holes shall be provided and the pipes properly cemented in place so as to form a watertight joint.
- D. Installation shall conform to ASTM D2321.

**END OF SECTION**

## SECTION 02731

### SEWER TESTING

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

##### 1.2 SCHEDULE OF TESTS

###### A. Sanitary Sewer System

###### 1. Deflection Testing

- a. All thermoplastic gravity sanitary sewer pipe shall be tested for allowable deflection.
- b. Deflection tests shall be performed before final acceptance and no sooner than thirty (30) days after installation of final backfill.
- c. Maximum allowable pipe deflection shall be five (5) percent of the average inside diameter for the size and class of pipe specified.
- d. Acceptance testing shall be performed with a non-adjustable "go, no-go" mandrel with a minimum of eight (8) contact points. Adjustable mandrels for acceptance testing shall be used only with written approval of the Engineer.
- e. The mandrel size shall be ninety-five (95) percent of the average inside diameter for the size and class of pipe specified.
- f. IF the "go, no-go" mandrel will not pass through a section of pipe a deflectometer or adjustable mandrel may be used to determine the extent and/or severity of the non-acceptable area. A "go, no-go" mandrel shall be re-run through the pipe section for final acceptance testing at no additional cost to the Owner.
- g. All sewers shall be cleaned prior to testing.
- h. The acceptance test shall be performed without mechanical pulling devices.
- i. All pipe failing the deflection test shall be exposed, repaired, or replaced and retested at no additional cost to the Owner.

###### 2. Infiltration and Exfiltration Testing

- a. All sewers shall be tested using an infiltration test or, where specifically allowed in writing by the Engineer, an exfiltration test.
- b. All sewers shall be tested. No visible leakage in the sewers or manholes shall be permitted.
- c. Bulkheads shall be used to isolate the test sections as required to perform the work. All service laterals, stubs, and fittings shall be plugged or capped at the connection to the test section.
- d. Each manhole run shall be tested separately.

###### 3. Exfiltration Testing

- a. The test shall be performed with a minimum head of water of three (3) feet above the top of the high end of the sewer or two (2) feet above the

high end of the highest lateral in the section or sections to be tested, or three (3) feet above the existing groundwater elevation, whichever is higher.

- b. The exfiltration test shall be conducted between two manholes by sealing the downstream end of the test section and all inlet sewers at the upstream manhole with pipestoppers.
- c. The average internal pressure in the system shall not exceed 11.6 feet of water or 5 psi and the maximum internal pipe pressure at the lowest end shall not exceed 23 feet of water or 10 psi.
- d. Water shall be added to the pipe section at a steady rate from the upstream manhole to allow air to escape from the sewer until the water is at the specified level above the crown of the pipe. The water may stand in the pipe and manhole up to seventy-two hours prior to measurement of leakage to allow for absorption by the pipe and bleeding of air. After absorption in to the pipe and manhole stabilized, the water in the upstream manhole shall be brought to test level.
- e. The leakage rate shall be determined by measurement of the drop in water elevation measured in the upstream manhole and the loss of water calculated. The test period shall be a minimum of sixty minutes duration. Use the following table to determine loss of water measured in the manhole:

Water Level Change in Test Manhole		Volume of Leakage	
		4 Ft. Dia. MH	5 Ft. Dia. MH
(inches)	(Feet)	(Gal.)	(Gal.)
1/8	0.01	0.98	1.53
1/4	0.02	1.96	3.06
3/8	0.03	2.94	4.59
1/2	0.04	3.92	6.12
5/8	0.05	4.9	7.65
3/4	0.06	5.87	9.18
7/8	0.07	6.85	10.71
1	0.08	7.83	12.24
1 1/8	0.09	8.81	13.77
1 1/4	0.10	9.79	15.30
1 3/8	0.11	10.77	16.83
1 1/2	0.12	11.75	18.36
1 5/8	0.13	12.72	19.89
1 3/4	0.14	13.71	21.42
1 7/8	0.16	14.69	22.90
2	0.17	15.67	24.48

4. **Infiltration Testing**

- a. An infiltration test shall be conducted for all sections of sewer only when the ground water level is two (2) feet or more above the elevation of the inside crown of pipe at the upstream limit of the section being tested.

- b. The use of well point pumps or other dewatering devices shall have been discontinued for 24 hours prior to testing to permit the groundwater table to return to a static condition.
  - c. The leakage rate shall be measured by a weir, by determination of the time required to fill a container of known volume, or other measuring device approved by the Engineer in the lower end of the sewer section to be tested.
  - d. The incoming sewer or sewers in the upper end of the test section shall be securely sealed.
5. Allowable Leakage
- a. The maximum allowable leakage for either infiltration or exfiltration shall be 50 gallons per inch of internal pipe diameter per mile per day.
  - b. If actual leakage measured exceeds the limits specified, the Contractor must locate and repair or remove and replace defective pipe sections to the satisfaction of the Engineer and retest the section accordingly at no additional cost to the Owner.
  - c. All sanitary manholes shall be tested separately using an exfiltration test to two (2) feet above the highest joint with no measurable leakage for a one-hour test.
6. Hydrostatic Testing – Pressure Pipe for Force Main
- a. The pipe to be tested must be sufficiently backfilled to prevent movement while under pressure
  - b. Joint restraint at all fittings should be permanent and constructed to withstand test pressure. If concrete thrust blocks are used, sufficient time must be allowed before testing to permit the concrete to cure. A cure time of seven (7) days is recommended when Type I Portland Cement is used; three (3) days is recommended when Type III high-early Portland Cement is used.
  - c. Test ends should be restrained to withstand the appreciable thrusts that are developed under test pressure.
  - d. Air pressure testing of installed pressure pipe is prohibited.
  - e. Any test performed without the knowledge of the Engineer shall not be considered a test for the purpose of this specification.
  - f. After the pipe is laid and before backfill is placed around the joints, such lengths of the force main as determined by the responsible agency shall be tested under a hydrostatic pressure of 1.25 times the working pressure at the highest point along the test section, but in no case, shall such force mains be tested at less than 150 pounds per square inch.
  - g. Each section of pipeline shall be slowly filled with water and the specified test pressure, measured at the point of lowest elevation, shall be applied by means of a booster pump connected to the pipe in a manner satisfactory to the Engineer. The duration of the test shall be for a minimum of sixty (60) minutes.
  - h. The Contractor shall furnish suitable means for determining the quantity of water lost by leakage during the test.

B. Manholes

1. Vacuum test in accordance with ASTM C1244 and as follows:
  - a. Plug pipe openings; securely brace plugs and pipe.
  - b. Inflate compression band to effect seal between vacuum base and structure; connect vacuum pump to outlet port with valve open; draw vacuum to 10 inches of Hg (33.8 kPa); close valve; start test.
  - c. Test:
    - Determine test duration for manhole from the following table:

VACUUM TEST TABLE

<u>Manhole Diameter</u>	<u>Test Period</u>
4 feet (1.2 meters)	60 seconds
5 feet (1.5 meters)	75 seconds
6 feet (1.8 meters)	90 seconds

- Record vacuum drop during test period; when vacuum drop is greater than 1 inch of Hg (3.4 kPa) during test period, repair and retest manhole; when vacuum drop of 1 inch of Hg (3.4 kPa) does not occur during test period, discontinue test and accept manhole.
- When vacuum test fails to meet 1 inch Hg (3.4 kPa) drop in specified time after repair, repair and retest manhole.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 03450

### PRECAST CONCRETE MANHOLES

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. Under this section, the Contractor shall furnish and construct precast concrete manholes, including drops and manhole stacks of types and at locations shown on the Drawings and/or schedule.
- B. This section includes additional excavation to widen and deepen sewer trenches for manhole construction, furnishing and installing concrete of classes called for, brick, Portland cement mortar, reinforcing steel, precast concrete pipe, integral base sections, bottom riser sections, transition sections, riser sections, eccentric cones, flat top slab tops and adjusting rings, flexible manhole connections, pipe for drop connections, plugging lifting holes, pointing joints, forming channels through manhole bottom, making watertight connections to new and existing sewers, and other work incidental to manhole construction.

##### 1.3 QUALITY ASSURANCE

- A. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work.

##### 1.4 DEFINITIONS

- A. The various types of manholes are as shown on the Drawings or in the Standard Details.

##### 1.5 SUBMITTALS

- A. Manufacturer's Shop Drawings and Certificates
  - 1. Precast Concrete Manhole Sections and Specials.
  - 2. Flexible Joints.
- B. Supplier's Certificates
  - 1. Reinforced Concrete Pipe Manhole Sections.

#### PART 2 PRODUCTS

##### 2.1 MATERIAL

- A. Precast Concrete Pipe Manhole Sections

1. Precast concrete pipe manhole sections, transition sections, eccentric cones, flat slab tops, and adjusting rings shall conform to ASTM Specifications C478. Reinforcing in transition sections shall be equal to that specified for wall sections of the larger diameter.
  2. Joints shall be O-ring type conforming to ASTM Specification C443.
  3. The standard length of riser sections shall be 48 in. Lengths of 32 in. or 16 in. shall be used to meet required dimensions and as specified.
  4. Openings for connecting pipes in riser section, bottom riser sections, and integral base sections and for access in flat slabs shall be performed or cored by the manufacturer. Cut-out openings shall be made immediately after the pipe is removed from the casting form. All cored openings for sewer pipe connection shall have flexible joints.
  5. Specified manhole steps shall be factory installed to provide a continuous ladder of 16 in. c/c rung spacing. Steps shall be placed in the forms and cast in the pipe wall or placed immediately after the pipe is removed from casting and carefully mortared in place with non-shrink mortar to insure a watertight joint. If the outer surface of the pipe wall is pierced, the patch shall be completely covered with a bituminous sealer.
  6. Where pressure tight manhole frames and covers are called for, threaded inserts shall be cast in eccentric cones or flat slab tops and holes formed or cored in adjusting rings to match bolt size and spacing specified for manhole casting.
- B. Manhole frames, covers, and steps utilized shall comply with their respective specification.
- C. Mortar
1. Mortar used for the structures herein specified shall conform to Specifications for Mortar for Unit Masonry, ASTM Designation C270 Type S, containing no masonry cement. The mortar shall be composed of one (1) part Portland cement to two (2) parts sand by volume.
  2. Materials for non-shrinking grout shall conform to CRD-C "Corps of Engineers Specifications for Non-Shrink Grout". Approved products are "Masterflow 713" by Master Builders; "NS Grout" by Euclid Chemical Company.
- D. All cast-in-place concrete used for forming channels in manhole bottoms shall be Class B as shown on the Drawings.
- E. Reinforcing steel used in cast-in-place concrete shall meet the requirements as shown on the Drawings.
- F. Flexible joints for precast manhole pipe openings herein specified shall conform to ASTM designation C923, "A-Lok" Type as manufactured by A-Lok Products; or approved equivalent.
- G. The pipe and size for manhole drops shall conform to the Standard Details and its respective specification contained herein.
- H. Brick used for manhole construction shall conform to Specifications for Sewer and manhole Brick (made from clay or shale), ASTM Designation C32, and shall be Grade "MS" unless otherwise specified.

## **PART 3 EXECUTION**

### **3.1 LOCATION AND CONSTRUCTION**

- A. Location and type of manhole installed shall be as shown on the Drawings or directed.
- B. Construction shall be in conformance with details shown on the Drawing and as specified under this section.

### **3.2 EXCAVATION**

- A. Excavation for manhole construction shall be prepared as directed in the applicable paragraphs of Section 02200.

### **3.3 INSTALLATION OF INTEGRAL BASE SECTIONS**

- A. Class B concrete shall be poured so as to provide a minimum of 4-in. thick pad under the entire area of the manhole base. Place the manhole on the pad before the concrete is completely set so that final leveling adjustment can be made.
- B. Six (6) inch granular backfill bedding can be used in lieu of Class B concrete.

### **3.4 CHANNELING MANHOLE BOTTOMS**

- A. The bottoms of all manholes shall be channeled to conduct flow in the planned direction. Channels shall be the true shape of the lower half of the sewer pipe and shall match inverts of connecting pipe at the manhole wall.

### **3.5 PRECAST CONCRETE RISER SECTIONS**

- A. The shortest length of riser section to be incorporated into the manhole shall be installed immediately below the flat slab top.
- B. Pipe section joints shall be pointed and lifting holes filled with non-shrinking mortar.

### **3.6 SPECIAL PROVISIONS**

- A. All manholes for sanitary sewers shall have an application of Thoro-Seal or other approved coating (any color but gray).

**END OF SECTION**

## SECTION 11315

### SUBMERSIBLE PUMP LIFT STATION

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. Work under this section includes, but is not limited to, furnishing and installing a factory built duplex submersible integrated valve vault pump station as indicated on the contract drawings and detailed specifications, herein specified, as necessary for proper and complete performance.

##### 1.3 REFERENCES

- A. Publications listed below form part of this specification to the extent referenced in the text by basic designation only. Consult latest edition of publication unless otherwise noted:
  - 1. American National Standard Institute (ANSI)/American Water Works Association (AWWA)
    - a. ANSI B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.
    - b. ANSI A21.15/AWWA C115 - Standard for Flanged Ductile-Iron Pipe with Ductile Iron or Gray Iron Threaded Flanges.
    - c. ANSI Z53.1 - Safety Color Code for Marking Physical Hazards and the Identification of Certain Equipment.
    - d. ANSI B40.1 - Gauges - Pressure Indicating Dial Type - Elastic Element
    - e. AWWA C105 - Standard for Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids.
    - f. AWWA C110 - Standard for Ductile Iron and Grey-Iron Fittings.
    - g. AWWA C111 - Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
    - h. AWWA C151 - Standard for Ductile Iron Pipe, Centrifugally Cast, for Water and Other Liquids.
    - i. AWWA C504 - Standard for Rubber Seated Buttery Valves

- j. AWWA C508 - Standard for Swing Check Valves for Waterworks Service, 2 In. Through 24 In.
2. American Society for Testing Materials (ASTM)
    - a. ASTM A48 - Standard Specification for Gray Iron Castings.
    - b. ASTM A126 - Standard Specification for Gray iron Castings for Valves, Flanges, and Pipe Fittings.
    - c. ASTM A 307 - Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
    - d. ASTM A536 - Standard Specification for ductile Iron Castings.
    - e. ASTM A 663 - Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties.
  3. Institute of Electrical and Electronic Engineers (IEEE)
    - a. ANSI/IEEE Standard 100 - Standard Dictionary of Electrical and Electronics Terms.
    - b. IEEE Standard 242 - Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.
  4. Miscellaneous References
    - a. 10 States Standards - Recommended Standards for Wastewater Facilities

#### 1.4 SYSTEM DESCRIPTION

- A. The contractor shall install one (1) Custom built automatically controlled submersible lift station with an integral below ground valve package capable of handling raw unscreened sewage or similar liquid.
  1. Custom built pump station design, including materials of construction, pump features, valves, piping and motor controls shall be in accordance with the requirements of this specification.

#### 1.5 PERFORMANCE

- A. Each pump shall be capable of delivering the performance as specified on the Contract Drawings.

#### 1.6 QUALITY ASSURANCE

- A. Upon request from the Owner, the lift station manufacturer shall prove financial stability and ability to produce the station within the specified delivery schedules. Evidence of facilities, equipment and expertise shall demonstrate the manufactures commitment to long term customer service and product support.

## 1.7 WARRANTY

- A. The lift station manufacturer shall warranty all equipment to be of quality construction, free of defects. The equipment, apparatus, and parts furnished shall be warranted for a period of five (5) years, excepting only in material and workmanship. A written warranty shall include specific details described below:
1. The equipment apparatus, and parts furnished shall be warranted for a period of five (5) years, excepting only those items that are normally consumed in service, i.e. light bulbs, heating elements, o-rings, etc. The pump station manufacturer shall be solely responsible for the warranty of the station and all components. Components failing to perform as specified by the Engineer, or as represented by the manufacturer, or as proven defective in service during the warranty period, shall be replaced or repaired by the manufacturer at no cost to the Owner (including labor).

## 1.8 SUBMITTALS

- A. Prior to fabrication, pump station manufacturer shall submit four (4) copies of submittal data for review and approval.
1. Submittals shall include shop drawings, electrical ladder logic drawings, products data and support data as follows: Catalog cut sheets reflecting characteristics for major items of equipment, materials of construction certified overall dimensions, motor data, pump characteristic curves showing the design duty point capacity (GPM), head (ft), and hydraulic brake horsepower (BHP). Electrical components installed in the power distribution, control panel and liquid level controls, shall be fully described.
  2. Shop drawings shall provide layout of mechanical and electrical equipment and anchor bolt locations for the enclosure and guide rail components. Pipe penetrators and station access clearances shall be dimensioned relative to the station centerline. The electrical ladder logic drawings shall illustrate motor branch and liquid level control circuits to the extent necessary to validate function and integration of circuits to form a complete working system.
  3. Product Data for control panel including enclosure, circuit protection, disconnects, starters, transformers, phase monitors, switches, relays and contacts, lights, timers, alternators, heaters, alarms, fuses, etc.
    - a. Shop Drawings for control panel including dimensional drawings, mounting details, clearances, service space, tabulations of installed devices, equipment features and ratings.
    - b. Wiring diagrams.
    - c. Qualification Data: For testing agency and manufacturer.
    - d. Field Test Reports
    - e. Manufacturer's field service report.
    - f. Operation and maintenance data.
      - 1) Manufacturer's instruction sheets.
      - 2) Manufacturer's installation instruction.
      - 3) Manufacturers operation manual.

## 1.9 COORDINATION OF WORK

- A. Connection to existing pipelines may require shutdown of Owner's facilities. Construction work and connections shall be closely coordinated with the Owner. The

Owner, may select the time, including Saturdays, Sundays, or legal holidays, which will cause the least inconvenience to the Owner and/or his customers, for connection to existing pipelines, and the Contractor will perform such connections at such times as may be directed by the Owner at the Contract prices. No claim for premium time or additional cost will be made by the Contractor.

#### 1.10 DELIVERY, STORAGE, AND HANDLING

- A. Inspect all piping for damage immediately upon delivery to the site.
- B. Pipe, fittings, and accessories that are cracked, damaged, in poor condition, or have damaged linings will be rejected.
- C. Store pipe and fittings on heavy wood blocking or platforms to avoid contact with the ground.
- D. Unload pipe, fittings, and specials in designated laydown areas. Keep interiors completely free of dirt and foreign matter.
- E. Handle all pipe, fittings, and accessories carefully using proper handling devices. Materials that have been cracked, gouged, chipped, dented, or otherwise damaged will be rejected.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURER

- A. The specifications and project drawings depict equipment and materials manufactured by Zoeller (or an approved equivalent) which are deemed most suitable for the service anticipated. The Contractor shall prepare his bid based on specified equipment for purposes of determining low bid. Award of contract shall constitute an obligation to furnish the specified equipment and materials.
- B. In the event an equipment substitution is permitted, the Contractor shall at his own expense make all resulting changes to the enclosures, building, piping, or electrical systems as required to accommodate the proposed equipment. Revised detail drawings illustrating the substitute equipment shall be submitted to the Engineer prior to acceptance.

#### 2.2 PUMPING SYSTEM PERFORMANCE TEST

- A. Each pump shall be tested to Hydraulic Institute standards at the design duty point and at least two other points on the performance curve in addition to shut-off point. Test data shall include capacity, head, line to line voltage, current on each phase, frequency, power factor, KVA, KW, KVAR, demand. Scaled testing is not considered acceptable or accurate for this application. The Engineer and Owner shall be notified at least 10 days in advance of testing and given the opportunity to witness the performance testing procedure and results. The test results shall be approved by the Engineer prior to shipment or installation.

## 2.3 PUMP DESIGN, CONSTRUCTION AND TESTING (NON-CLOG)

- A. Each pump shall be capable of handling raw, unscreened domestic sewage consisting of water, fibrous materials, and up to three (3) inch diameter spherical solids. The pump(s) shall be capable of handling liquids with temperatures to 104 degrees Fahrenheit continuous and 160 degrees Fahrenheit intermittent. Bearings shall be oil-lubricated and designed for 50,000 hours operating at minimum flow. Product shall be furnished with a minimum 1.2 service factor. Pumps shall be supplied with a five (5) year standard warranty.
- B. The volute, seal plate, adapter, motor housing, and motor housing cap shall be constructed of high quality, ASTM A48 Class 30 cast iron. Impeller shall be furnished in ASTM A536 ductile iron with keyed, tapered shaft bore. Pump(s) shall be coated with corrosion resistant powder coat epoxy finish. Color shall be the manufacturer's standard color. All exposed hardware shall be 300 series stainless steel including the lifting bail. The pump construction shall contain no points of critical clearance nor require periodic adjustment or replacement to maintain operating efficiency. Discharge connection shall be a standard 125-pound flange, slotted to accommodate ANSI flanges. The pump shaft shall be in 416 stainless steel with a tapered impeller fit to reduce rotor imbalance and minimize stress risers associated with stepped shafts. All gaskets shall be of the angular gland compression o-ring type eliminating critical slip fits and the possibility of damage during service associated with sliding o-ring sealing arrangements.
- C. The impeller shall be of the dual vane design with pump out vanes on the back side. The impeller shall be dynamically balanced to ISO G6.3 specifications. The tandem mechanical shaft seals shall be of the single spring design operating in an intermediate oil filled seal cavity. Pump-out vanes in the back of the impeller shroud shall be large enough to efficiently expel solids away from the seal area. The materials of construction shall be silicon carbide vs. silicon carbide from the pump end seal and carbon vs. ceramic for the motor-end seal, lapped and polished to a tolerance of one light band. The pump-end seal shall be pinned in place to prevent rotation of the stationary seat and shall seal to the pump housing via an o-ring to maximize heat transfer. Cup mounted seats shall not be considered equal. The seal shall be commercially available and not a pump manufacturer's proprietary design.
- D. A moisture sensor detection system consisting of two probes shall be integrated within the oil-filled seal chamber which is isolated from the motor chamber. Moisture sensing devices utilizing one probe and grounding through the pump case or utilizing a float device are not acceptable. The leads for the moisture detector shall be contained within the power cable.
- E. The pump motor shall be sized to be non-overloading throughout the entire pumping curve. The rotor and stator assembly shall be of the standard frame design and the stator pressed into the motor housing for mechanical stability. The motor shall be constructed with the windings operating in a sealed environment containing clean dielectric oil. Manufacturer to supply submergence requirements for continuous operation.
- F. Motors shall be dielectric oil filled for optimal thermal management and maximum bearing lift. Air-filled motors with grease-filled bearing shall not be acceptable. The motor windings shall be Class F insulation. The motor shall meet the NEMA Design B standard.

- G. Thermal sensors (one per phase) shall be embedded in the end coil of the stator windings, wired in series and used to monitor stator temperatures. This shall be used in conjunction with an external motor overload protection device and wired to the control panel through the single power cable.
- H. The pump shall be equipped with 50 ft of CSA-qualified submersible power cable constructed in accordance with type W guidelines and shall include the moisture and temperature sensor leads. To facilitate cord identification, the cast stainless plates shall have applicable voltage and amperage ratings cast into the plates and, in addition, the plugs shall be color-coded orange for 460 or 575 volt and color-coded black for 208 or 230 volts.
- I. The pump manufacturer shall perform the following inspections and tests in accordance with Hydraulic Institute type B standards before shipment from the factory:
  1. A check of the motor voltage and frequency shall be made as shown on the name plate.
  2. A motor and cable insulation test for moisture content or insulation defects shall be made per CSA and FM criteria.
  3. The pump shall be run to determine that the unit meets five per-determined hydraulic performance points.
  4. A performance curve from the production line test showing head versus flow shall be included in the Installation and Operation Manual shipped with each pump.
  5. A written report shall be available showing the aforementioned tests have been performed in accordance with the specifications.

#### 2.4 PUMP DESIGN CONSTRUCTION AND TESTING (GRINDER)

- A. A centrifugal submersible grinder pump designed to reduce all material found in normal domestic and light industrial sewerage, including plastics, rubber, sanitary napkins, and disposable diapers into a finely ground slurry. The resultant slurry is then pumped through small diameter piping into a gravity interceptor or treatment facility. The temperature limitation of the liquid being pumped is 104 degrees Fahrenheit continuous and 160 degrees Fahrenheit intermittent and shall be capable of running dry for extended periods.
- B. The volute, seal plates, and motor housing shall be constructed of high quality ASTM A48 Class 30 cast iron. The pump(s) shall be painted with a water based air dry enamel with a minimum DFT of 2.0 mils. All exposed hardware shall be 300 series stainless steel. Discharge connection shall be a standard two (2) inch NPT in the vertical position.
- C. The pump impeller shall be of the recessed vortex design. Pumps with standard centrifugal semi-open impeller designs shall not be acceptable. The impeller shall be of 85-5-5 bronze construction and machined for threading to the motor shaft. The impeller shall be capable of being trimmed to meet specific performance characteristics.
- D. The grinder mechanism shall consist of a radial cutter threaded and locked on the motor shaft by a washer in conjunction with a countersunk flat head capscrew, and a shredding ring containing a minimum of fifteen flow passages with cutting edges. The shredding ring shall be reversible to provide twice the cutting edge lift. Both the shredding ring and

radial cutter shall be constructed of 440 stainless steel hardened to a minimum Rockwell C55-60 and shall be ground for a fine cutting edge..

- E. The unit shall utilize a tandem mechanical shaft seal arrangement and shall operate in an oil atmosphere. The materials of construction shall be carbon for rotating face and ceramic for the stationary face, lapped and polished to a tolerance of one light band. The seal shall be commercially available and not a proprietary design of the manufacturer.
- F. The motor windings shall be of Class F insulation. The motor shall meet the standard NEMA design B. The motor shaft shall be of 416 stainless steel. Protection against excessive temperature shall be provided by heat sensor thermostat attached to the stator windings and connected in series with the contactor coil in the control panel. The pump shall have a two bearing design consisting of an upper ball bearing, and a bearing to carry radial loads and prevent shaft deflection imposed by the pump impeller and grinder operation.
- G. The pump shall be equipped with 50 ft of type SOW power cable.
- H. The pump manufacturer shall perform the following inspections and test in accordance with Hydraulic Institute Type B standards before shipment from the factory:
  - 1. A check of the motor voltage and frequency shall be made as shown on the nameplate.
  - 2. A motor and cable insulation test for moisture content or insulation defects shall be made per UL criteria.
  - 3. The pump shall be completely submerged and run to determine that the unit meets three pre-determined hydraulic performance points.
  - 4. A written report shall be available showing the aforementioned tests have been performed in accordance with the specifications.

## 2.5 SPARE PARTS

- A. Submersible Pumps:
  - 1. One (1) mechanical seal kit complete for each pump furnished including:
    - a. Upper and lower mechanical seals
    - b. Impeller bolt, washer and key
    - c. All O-rings required to perform the installation of the mechanical seal.

## 2.6 ELECTRICAL CONTROL COMPONENTS (SEE APPENDIX A FOR TECHNICAL DATA)

- A. All electrical components shall meet NEMA standards, and shall comply with the NEC and UL as applicable to construction and installation of wiring and components. The electrical system inside the wet well shall comply with the NEC for Hazardous Locations, Class I, Division I, Group D.
  - 1. The control panel shall be supplied by the same supplier as the pumps to ensure suitability and assurance of experience in matching controls to motors and to also insure single source responsibility for the equipment.
- B. Enclosure. Enclosures supplied with each left shall be NEMA 4X rated. The enclosure shall be large enough to provide an unused space equal to at least twenty-five (25) percent of the space required (minimum size shall be 36x30x12) The construction shall be

better than or equal to fourteen (14) gauge 304 stainless steel in accordance with ASTM A167. The panel shall be mounted as shown on the Contract Drawings. All enclosures, panels, etc. shall be UL listed and shall be fabricated by an UL approved shop in accordance with NFPA 79 Electrical Standards for Industrial Machinery.

1. The sub panel in the back of the main enclosure shall be steel painted with white ceramic paint. All other components of the enclosure shall be stainless steel.
- C. Control and Operation. The lift station shall be operated from four (4) float switches (mechanical, *not mercury*), located in the wet well. The first two (2) floats are for starting and stopping the pumps. When the level reaches the pump "on" level the "lead pump" shall start and continue to run until the "off" level is reached. The two (2) pumps shall alternate on each on/off cycle. The third float is to turn on the "lag" pump should the lead pump fail to start or cannot keep up with the influent flow. The fourth float is to alert the operator that the wet well is at a high-water level and shall activate the alarm system.
1. There shall be installed within the control panel intrinsically safe relays for each float switch. Wiring associated with the intrinsically safe relays shall be segregated from other power and control wiring.
- CI. Elapsed Time Meters. Provide an elapsed time meter for each pump controlled. Meter shall be six (6) digit, non-resettable, reading and hours and tenths and of hours.
- CII. Circuit Breakers. All circuit breakers shall be heavy duty ER molded case breakers and manufactured by Square D. The main circuit breaker shall be provided with provisions for locking in an "on" or "off" position.
- CIII. Interior Service Light. Provide an interior fluorescent service light with safety lens fastened to the top of the enclosure with a two (2) position "off-on" selector knob to control. Light shall be mounted without penetrating the panel outer skin with screws or fasteners.
- CIV. Condensation Heater. A combination type heater that includes a circulation fan, heater element, and thermostat shall be installed to assist in reducing condensation within the panel. It shall be a minimum 100 Watt.
- CV. Line-Surge Protection. A surge protector shall be installed and wired to protect motors and control equipment from lightning inducted line surges and any transient voltage surges. The pump manufacturer will certify that the surge protector is designed to protect the motors and all components from any surges under the manufacturer's warranty.
- CVI. Phase Monitor (3 phase motors only). A 3-phase monitor shall be installed and wired to disconnect control from the motor starters in the event of loss of power, phase reversal, loss of any phase or phase unbalance, or low voltage. The phase monitor shall automatically reset upon removals of any and all of the preceding conditions.
- CVII. Pump Protection Monitoring Relays. These relays shall be installed in the panel. These relays shall monitor the heat sensors and seal leak probes within the pump. The heat sensor shall be wired in series with the motor starter coil and shut the pump off when in a failed condition. The alarm shall require manual reset and lock the pump out until reset. The seal leak monitor shall energize the seal failure indicator light on the inner door. This alarm shall be indication only and shall not shut the pump down. The pump manufacturer shall supply these monitoring relays.

- K. **Motor Starters.** Each pump shall have a NEMA rated motor starter. The started shall be as manufactured by Square D, Type 8536. Each motor starter shall include melting alloy type overload heaters sized according to motors full load amps and the Square D sizing charts.
- L. **Over-Current Relays.** Adjustable over-current relays shall be provided and shall be wired so that every motor lead passes through a separate current loop.
- M. **Terminal Blocks.** There shall be a termination strip with box type connectors to make all power and control connections for the pumps. All terminals shall be marked for easy identification. A ground terminal strip shall be provided also.
- N. **Receptacle.** Each lift station enclosure shall be provided with one (1) duplex service receptacle, 115-volt AC, 15-amp rating. This outlet shall be supplied from the control transformer and shall have GFCI circuit protection. The outlet shall be located inside the control panel.
- O. **Alternator.** A solid state electronic alternator relay shall be installed to allow equal wear of the pumps. The alternator shall as manufactured by Diversified Electric ARB series. For maintenance purposes, the lift station shall be capable of being set on pump one or two only and have that be the lead pump for the duration of time the second pump is out of service.
- P. **Alarm.** The control panel shall contain a flashing "Hi-Water" alarm light mounted on the side or bottom of the enclosure with a red shatter resistant lens and 40 Watt bulb.
  - 1. The alarm system shall also include an audible alarm horn with silence push button mounted on the side of the enclosure. The silence push button shall silence the horn but the red flashing light shall remain lit until the alarm condition has cleared.
- Q. **Wiring.** All wiring and cable installation shall conform to NEC regulations and shall comply with local codes. All conductors shall be copper. For electric equipment feeders (motor control center, motor branch circuits, etc.) located below grade or for exterior control and motor circuits, wiring shall be type THHN through #2 AWG and type RHH for larger than #2 AWG. For branch circuits for lighting and receptacles, wiring shall be type THHN
- R. **Wiring.** Power wiring shall be 12 AWG minimum, and control wiring shall be 14 AWG minimum.
  - 1. All conductors shall be sized such that the voltage drop does not exceed three (3) percent for branch circuits or five (5) percent for feeder branch circuit combinations.
- S. **Manual Transfer Switch.** Provide a double throw, NEMA 3R, manual transfer switch for generator receptacle at lift stations noted on the Contract Drawings. The manual transfer switch shall be located outside the control panel.
- T. There shall be dry normally open contacts for Owner use. These shall include run status for each pump, pump failure, power failure, and high level. These shall be wired to the terminal blocks for Owner connection.

## 2.7 ALUMINUM ACCESS DOORS

- A. Exterior doors shall be Type "J" and "JD" as manufactured by the Bilco Company, or approved equal.
- B. The access frame shall be 1/4 inch aluminum with an anchor flange around the perimeter.
- C. The access door shall be 1/4 inch aluminum diamond pattern plate to withstand a live load of 300 pounds per square foot. The door shall be equipped with heavy forged brass hinges, stainless steel pins, spring operators for easy operation, and an automatic hold-open arm with release handle. A snap lock with removable handle shall be provided. A 1-1/2 inch drainage coupling shall be located in the front right corner of the access frame.
- D. Hardware shall be cadmium plated and factory finish shall be a mil finish with bituminous coating applied to the exterior of the frame.
- E. Access door and frame for exterior doors shall be of the types and sizes specified.
- F. A fall protection grating panel(s) shall be provided with all wet well access doors. Grating shall be powder coated safety yellow or orange. Grating shall meet OSHA Standard 29 CFR 1910.23 and be equipped with a hold open device to lock the grating panel(s) in the open position. Hold open device and all hardware shall be Type 316 stainless steel. Manufacturer shall provide a 25-year warranty against defects in material and workmanship.
- G. Installation shall be in accordance with manufacturer's instructions.

## 2.8 GUIDE SYSTEM

- A. Each pumping unit support shall be equipped with a Type 304L stainless steel dual guide rail system sized to fit the discharge elbow and guide bracket, as recommended by manufacturer's specifications.
- B. The dual guide rails shall extend from the pump up to the access frame at the top of the wet well.
- C. Intermediate stainless-steel supports shall be installed to stiffen the pump guide rails. Supports shall be secured to the wet well wall utilizing Type 316 stainless steel wedge anchors.

## 2.9 LIFTING CHAIN

- A. Provide a stainless-steel chain for each pump/motor assembly, sized according to manufacturer's recommendations, for installing and removing the entire assembly without failure.
- B. Provide a means for attaching the other end of the cable to the wet well access frame.

## 2.10 PIPES, VALVES, AND FITTINGS

- A. Pipe sizes three (3) inches and larger within and between the wet well and valve box shall be, AWWA C151 ductile iron with flanged or restrained mechanical joint ends in accordance with AWWA C110 and AWWA C111, respectively. Unless otherwise noted on the plans, the minimum thickness of the barrel of pipe shall be Class 53. The interior of all ductile iron pipe shall be ceramic epoxy lined. Epoxy ceramic lining shall be PROTECTO 401 as manufactured by U.S. Pipe & Foundry Co. or approved equivalent and shall be installed in strict accordance with manufacturer's recommendations.
- B. Flanged fittings shall conform to AWWA C110 or ANSI B16.1 specifications. Gaskets for all flanged joints shall be full-faced 1/8" solid rubber. Ductile iron fittings shall be manufactured in strict accordance with AWWA C153, AWWA C110 and AWWA C111. The interior of all ductile iron fittings shall be ceramic epoxy lined. Epoxy ceramic lining shall be PROTECTO 401 as manufactured by U.S. Pipe & Foundry Co. or approved equivalent and shall be installed in strict accordance with manufacturer's recommendations.
- C. Each pump discharge line shall include an isolating 2-way plug valve prior to force main cross. Each valve shall be of the non-lubricated eccentric type with an elastomeric covering all seating surfaces. The elastomer shall be suitable for the service intended. Flanged valves shall be manufactured in accordance with ANSI B16.1 Class 125/150, including face drilling and flange thickness. Ports shall be round with a minimum of 80% port area and pass a three (3) inch spherical solid.
  - 1. Valve bodies shall be constructed of cast iron conforming to ASTM A126 Class B. Valve body shall be furnished with a welded-in overlay of 90% nickel alloy content on all surfaces contacting the plug face. Sprayed, plated or screwed in seats are not acceptable.
  - 2. Plugs shall be constructed of ductile iron conforming to ASTM A126, Grade 65-45-12. The plug shall be of one piece solid construction with PTFE thrust bearings on the upper and lower bearing journals to reduce torque and prevent dirt and grit from entering the bearing and seal area.
  - 3. Valves shall be furnished with replaceable sleeve type bearings conforming to AWWA C504-87 and AWWA C507-85. Bearing shall be sintered; oil impregnated type 316 stainless steel ASTM A743, Grade CF-8M. Seals shall be self-adjusting and re-packable without removing the bonnet from the valve.
  - 4. Wrench operating valves 2-1/2" - 8" shall be capable of being converted to worm gear or automated operation without removing the bonnet or plug from the valve. All wrench operated valves shall be equipped with a two (2) inch square nut for use with removable levers or extended "T" handles.
  - 5. Valves in sizes twelve (12) inches and smaller shall be designed for a minimum working pressure of 175 psi.
  - 6. Valves shall be tested in accordance with AWWA C504-87, Section 5. Each valve shall be performance tested in accordance with Section 5.2 and shall be given a leakage test and hydrostatic test as described in Paragraphs 5.3 and 5.4. The leakage test shall be applied to the face of the plug tending to unseat the valve. Certified copies of Proof-of-Design test reports shall be furnished upon request.
- D. All standard fittings shall be ductile iron conforming to AWWA C110. Compact fittings shall not be used unless specifically designated on the plans or as directed by the Engineer. Compact fittings shall conform to AWWA C153.

- E. Fittings for pipe sizes twelve (12) inch diameter and smaller shall be rated for 250 psi working pressure, and fittings for pipe sizes 14 inch diameter and larger shall be rated for 150 psi working pressure in accordance with AWWA C110. Fittings for higher working pressures will be noted on the plans.
- F. The quick connect installed in the valve box shall be a Camlock, Type A, stainless steel, male Camlock x female pipe thread. The Cam shall be fitted with a Camlock dust cover.

## 2.11 PRESSURE GAUGES

- A. The Contractor shall furnish and install, as indicated on the plans, a four (4) inch diameter liquid filled pressure gauge with snubber diaphragm seals. Liquid shall be silicone. The stem shall be 1/4 inch NPT M on lower back. The gauge shall operate over a pressure range of 0-100 psi.
- B. Pressure gauge shall be as manufactured by Tel-Tru Manufacturing Co., Model 30, or approved equivalent.
- C. Diaphragm seal shall be threaded Ametek M&G type, 1/4 inch NPT flushing port or approved equivalent.

## 2.12 PROTECTIVE COATINGS

- A. Piping and Fastening Appurtenances.
  1. Piping and fastening appurtenances shall be coated with Carboline 187 Phenolic System or approved equal. The system shall consist of a prime coat and finish coat. Each coat shall achieve a DFT of 4.0-6.0 mils. The prime coat shall be red (Color 0500) and the finish coat shall be gray (color C703).
  2. A "strip coat" shall be applied to all flanges, appendages, etc. during the application of both coats. In the event of a spray application (preferred), a "strip coat" is defined as an application of the given coating material to all edges, seams and other difficult to reach/see surfaces. These areas shall be given special attention (even by brush/roller application as needed), thinned as necessary to ensure adequate mils are applied. Immediately after the application of the said strip coat, the full and overall application of the given coat is then applied, i.e. In a wet to wet mode.
  3. The pipe shall be clean, dry, and decontaminated prior to abrasive blasting. Surfaces to be coated shall be cleaned per SSPC-SP1. Following the cleaning process, the surface shall be abrasive blasted to meet SSPC-SP5 to obtain a 1.5-3.0 mil anchor profile.
  4. Field touch up of pipe coating:
    - a. All shop coats shall be touched-up after field erection. Surfaces shall be properly prepared per the following procedure for all field repairs of welds and coating system damages:
      - 1) Clean, dry, and decontaminate the surfaces to be repaired per SSPC-SP1.
      - 2) Clean surfaces per SSPC-SP2 and/or SSPC-SP3 -Hand/Power Tool Cleaning as needed.
      - 3) All edges of existing, tightly adhered coatings shall be feather-edged to provide a beveled/smooth transition configuration for the coating to be applied.

- 4) Apply a one (1) coat of Carboline Carbomastic 15 (or Carbomastic 15 FC for temperatures below 80 degrees Fahrenheit) to obtain a DFT of 6.0-8.0 mils.
- 5) Apply a finish coat of Carboline Phenoline 187 (color gray C703)
- 6) All priming and finish coats shall be applied per manufacturer's recommendations.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify orientation of pumps, access opening, and site layout.
- B. Verify location of influent and effluent lines.
- C. Verify location of electrical conduit.

#### **3.2 EXCAVATION, BACKFILL, AND GRADING**

- A. The Contractor shall excavate to the depths required to install the structures in accordance with the drawings, keeping the limits of excavation to within two (2) feet of the neat lines of foundations wherever possible.
- B. Excavation beyond the required depths and widths shall be filled with suitable materials at no additional cost to the Owner.
- C. Excavated materials shall be stockpiled for use in backfilling. It shall be placed a safe distance from the excavation without overloading the undisturbed soil.
- D. The excavation shall be accomplished in a manner to protect adjacent structures and to safeguard workmen.
- E. Surface water shall be directed away from the excavation by grading and/or constructing ditches or berms.
- F. Prior to placing backfill, all trash, debris, and timber shall be removed from the trench or excavation. The backfill shall be made from suitable materials.
- G. Backfill shall be placed in layers not to exceed eight (8) inches in depth and shall be compacted by mechanical tamping or rolling, or by other methods proposed in writing by the Contractor and approved by the Engineer.
- H. Fill shall be compacted to 95% maximum density in accordance with ASTM D698 (Standard Proctor)
- I. All affected areas of the project site shall be graded to the elevations, contours, and shapes as required on the drawings. All roots, trash, and debris shall be removed. The earth shall be finished to be free of humps, ridges, and depressions.

### 3.3 WET WELL AND INTREGAL VALVE VAULT

- A. Excavate to depths required to install the structures in accordance with the Drawings.
- B. Provide foundation bedding as indicated on the Drawings.
- C. Erect precast pipe sections with watertight joints as indicated on the Drawings.
- D. Access frames and covers shall be installed in the precast concrete top, assuring correct orientation and location with regard to hinges, direction of opening, components, and accessories.
- E. Prior to backfilling around wet well, a hydrostatic test shall be performed in accordance with ACI 350.1R-01.

### 3.4 PUMPS, PIPING, VALVES, AND ACCESSORIES INSTALLATION

- A. Attach the upper guide brackets to access opening in the top slab.
- B. Check motor and control data plates for compatibility to site voltage. Install and test the station ground prior to connecting line voltage to station control panel.
- C. Install anchor bolts, nuts, and washers for mounting pump base to wet well floor in accordance with pump manufacturer's recommendations.
- D. Position pump mounting base and discharge elbow on the floor on the wet well.
- E. Install guide rails between upper guide brackets and discharge elbow with intermediate brackets.
- F. Ensure guide system is properly aligned and level and anchored according to manufacturer's instructions.
- G. While pumps are being lowered onto the guide rail system, a check shall be made between the volute flange and discharge elbow flange.
- H. After pump base is grouted into place, install all piping in accordance with manufacturer's instructions and the Drawings.
- I. Install pressure gauges on the discharge pipe at the location indicated in the Drawings.
- J. Install trash basket per manufacturer's recommendations.
- K. Prior to applying electrical power to any motors or control equipment, check all wiring for tight connection. Verify that protective devices (i.e. fuses/circuit breakers) conform to project design documents. Manually operate circuit breakers and switches to ensure operation without binding. Open all circuit breakers and disconnects before connecting utility power. Verify line voltage, phase sequence and ground before actual start-up.

### 3.5 QUALITY CONTROL

- A. Operational Test

1. Prior to acceptance by Owner, an operational test of all pumps, drives, and control systems shall be conducted to determine if the installed equipment meets the purpose and intent of the specifications. Tests shall demonstrate that all equipment is electrically, mechanically, and structurally, and otherwise acceptable; it is safe and in optimum working condition; and conforms to the specified operating characteristics.
2. After construction debris and foreign material has been removed from the wet well, Owner shall supply clear water volume adequate to operate station through several pumping cycles. Observe and record operation of pumps, suction and discharge gage readings, ampere draw, pump controls, and liquid level controls. Check calibration of all instrumentation equipment, test manual control devices, and automatic control systems. Be alert to any undue noise, vibration or other operational problems.

B. Manufacturer's Start-Up Services

1. Coordinate station start-up with manufacturer's technical representative. The representative or factory service technician will inspect the completed installation. He will calibrate and adjust instrumentation, correct or supervise correction of defects or malfunctions, and instruct operating personnel in proper operation and maintenance procedures. The representative shall be present a minimum of one (1) eight (8) hour workday per lift station site. The Owner shall provide enough water or sewage to fill the system and allow for a pump down test of at least three (3) cycles in a one (1) hour period. Water for field test shall be supplied by the Owner.

C. Training

1. Manufacturer shall provide on-site training to employees as selected by the Owner. The objective of the training is to provide a common working knowledge and maintenance of the operation of the system. Training shall include (1) six-hour training session provided at the completion of startup.

3.6 CLEANING

- A. Prior to acceptance, inspect interior and exterior of lift station for dirt, splashed material, damaged coatings, etc. Clean or repair accordingly. Remove from the job site all tools, surplus materials, scrap, and debris.

3.7 PROTECTION

- A. The lift station shall be placed into service immediately. If operation is delayed, remove all water from pumps and piping. Open motor circuit breakers and protect station controls and interior equipment from cold and moisture.

## SECTION 11820

### AIR RELEASE VALVES

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 SUMMARY

- A. Extent of each type of size of valve required is indicated in the Drawings.
- B. All valves used for a particular service are to be of the same manufacturer, make, and style for each valve type.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.
- B. Each valve shall be subjected to operation and hydrostatic tests at the manufacturer's plant as specified within applicable AWWA Standards.

##### 1.4 SUBMITTALS

- A. Furnish manufacturer's product data, shop drawings, and material certification as required.
- B. Operation and maintenance manual including storage, installation, start-up, operating, and maintaining instructions, and a complete spare parts list.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not remove valve end protectors unless necessary for inspection, then reinstall for storage.
- B. Store valves indoors. Maintain valve temperature higher than the ambient dew point temperature. If indoor storage is necessary support valves off the ground or pavement in watertight enclosure.
- C. Use a sling to handle valve whose size requires handling by crane or lift. Rig valves to avoid damage to exposed or internal valve parts. Do not use hand wheels and stems as lifting or rigging points.

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. Shut off valves shall be a quarter turn, lever actuated plug valve. The direction of opening shall be indicated by an arrow cast on the body and/or the actuator.
- B. All body bolts and nuts shall be cadmium plated and are to receive protective finish coatings.

### **2.2 SEWAGE COMBINATION AIR VALVES**

- A. Combination air valves shall be automatic float operated valves designed to exhaust large quantities of air during filling of piping systems and close upon liquid entry. The valve shall open during draining or if a negative pressure occurs. The valve shall also release accumulated air from a piping system shall the system is in operation and under pressure. The valve shall perform the functions of both a wastewater air release and air/vacuum valve and be furnished in a single body.
- B. Valve body and cover shall be ASTM A126, Grade B cast iron or ASTM A536, Grade 65-45-12 ductile iron.
- C. The valve shall have two additional NPT connections that will allow for connection of backwashing accessories.
- D. Internal linkage, stem and concave float shall be stainless steel conforming to ASTM A240.
- E. The seat shall be Buna-N nitrile rubber.
- F. The valve shall contain a float, venting mechanism and orifice with a system rating 500 psi shockless services.
- G. Valves shall be as manufactured by DeZurik Apco, Model 440; Val-Matic, Model 801AS or approved equal.

### **2.3 PROTECTIVE COATINGS**

- A. All exterior and internal waterway ferrous surfaces of each valve, except finish or bearing surfaces shall be shop painted with a liquid or powder epoxy coating of approximately 10 mils dry film thickness conforming to AWWA C550.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. All valves shall be carefully installed in their respective positions free from distortion and stress. Connecting joints shall conform to applicable requirements of the specifications.

**END OF SECTION**

## SECTION 15020

### DISINFECTING PIPELINES

#### PART 1 GENERAL

##### 1.1 RELATED DOCUMENTS

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. General: The Contractor shall flush and disinfect all pipelines installed under the Contract.
- B. Disinfecting the waterline shall be completed after the pressure testing has been completed and approved. The Contractor shall chlorinate the water main as often as necessary to achieve an approved potable water test. Arrangements for and the performance of the adequate and satisfactory disposal of all test and disinfection waters shall be the Contractor's responsibility.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.
- B. The forward of AWWA Standards B300 contains information and additional reference material regarding the safe handling of hypochlorite. The Contractor shall familiarize himself with this information prior to performing any disinfection work.

##### 1.4 REFERENCE SPECIFICATIONS

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
- B. American Water Works Association:
  - 1. AWWA B300 - Standard for Hypochlorites.
  - 2. AWWA C651 - Disinfecting Water Mains.

#### PART 2 PRODUCTS

##### 2.1 MATERIALS AND EQUIPMENT

- A. Contractor shall furnish calcium hypochlorite (HTH) as needed to complete the disinfection of all pipelines. Calcium hypochlorite is available in granular form or in 5-g (approx) tablets, and contains approximately 65% available chlorine by weight. The

material should be stored in a cool, dry, and dark environment to minimize its deterioration. Furnish in accordance with AWWA B300-87.

- B. Pipes and appurtenances shall be kept clean and dry during construction.

### **PART 3 EXECUTION**

#### **3.1 APPLICATION OF DISINFECTANT**

- A. Methods to be used for disinfection are detailed in AWWA C651.

#### **3.2 DISINFECTION OF WATER MAINS**

- A. The tablet method consists of placing calcium hypochlorite granules and tables in the water main as it is being installed and then filling the main with potable water when installation is completed.
  1. Placing of calcium hypochlorite granules: During construction, calcium hypochlorite granules shall be placed at the upstream end of the first section of pipe, at the upstream end of each branch main, and at 500-foot intervals. The quantity of granules shall be as shown in Table 1.
  2. Placing of calcium hypochlorite tables: During construction, 5-g calcium hypochlorite tables shall be placed in each section of pipe and also one such tablet shall be placed in each hydrant, hydrant branch and other appurtenances. The number of 5-g tables required for each pipe section shall be  $0.0012d^2L$  rounded to the next highest integer, where  $d$  is the inside pipe diameter in inches and  $L$  is the length of the pipe section in feet. Table 2 shows the number of tables required for commonly used sizes of pipe. They shall be attached by a food grade adhesive. There shall be no adhesive on the tablet except on the broad side attached to the surface of the pipe. Attach all the tables inside and at the top of the main, with approximately equal numbers of tablets at each end of a given pipe length. If the tablets are attached before the pipe section is placed in the trench, their position shall be marked on the section so it can be readily determined that the pipe is installed with the tablets at the top.
  3. Filling and contact: When installation is complete, the main shall be filled with water at a rate such that water within the main will flow at a velocity no greater than one (1) foot/second. Precautions shall be taken to assure that air pockets are eliminated. This water shall remain in the pipe for at least 24 hours. If the water temperature is less than five (5) degrees Celsius, the water shall remain in the pipe for at least 48 hours. Valves shall be positioned so that the strong chlorine solution in the main being treated will not flow into water mains in active service.

**TABLE 1**

<u>Pipe Diameter</u>	<u>Calcium Hypochlorite Granules</u>
4"	0.5
6"	1.0
8"	2.0
12"	4.0
16" and larger	8.0

Ounces of Calcium Hypochlorite Granules to be placed at beginning of main and at 500-foot intervals.

**TABLE 2**

<u>Pipe Diameter</u>	<u>Length of Pipe Section, ft.</u>				
	<u>13 or less</u>	<u>18</u>	<u>20</u>	<u>30</u>	<u>40</u>
4"	1	1	1	1	1
6"	1	1	1	2	2
8"	1	2	2	3	4
10"	2	3	3	4	5
12"	3	4	4	6	7
16"	4	6	7	10	13

Number of 5-g Hypochlorite tables required for dose of 25 mg/L.

### 3.3 DISPOSAL OF HEAVILY CHLORINATED WATER

- A. After the applicable retention period, heavily chlorinated water should not remain in contact with piping for more than 48 hours. In order to prevent damage to the pipe lining or corrosion damage to the pipe itself, the heavily chlorinated water shall be flushed from the main until chlorine measurements show that the concentration in the water leaving the main is no higher than that generally prevailing in the system or is acceptable for domestic use. Contractor shall contract the local sewer department to arrange for disposal of heavily chlorinated water to the sanitary sewer.
- B. The chlorine residual of water being disposed shall be neutralized by treating with one of the chemicals listed in Table 3. If a sanitary sewer is system is unavailable for disposal of the chlorinated water, an alternative method shall be used at no additional cost to the Owner.
- C. The alternative method for disposal of chlorinated water shall be approved by the Engineer. A reducing agent shall be applied to the chlorinated water to be wasted to completely neutralize the chlorine residual remaining in the water. Where necessary, federal, state, and local agencies should be contacted to determine special provisions for the disposal of heavily chlorinated water.

**TABLE 3**

<u>Residual Chlorine Concentration mg/L</u>	<u>Sulfur Dioxide</u>	<u>Sodium Bisulfite</u>	<u>Sodium Sulfite</u>	<u>Sodium Thiosulfate</u>
1	0.8	1.2	1.4	1.2
2	1.7	2.5	2.9	2.4
10	8.3	12.5	14.6	12.0
50	41.7	62.6	73.0	60.0

Pounds of chemicals required to neutralize various chlorine concentrations in 100,000 gallons of water.

**3.4 BACTERIOLOGICAL TESTING**

- A. After final flushing and before water main is placed into service, a sample or samples will be collected from the end of the line by the Contractor and be tested by an independent laboratory for bacteriological quality in accordance with *Standard Methods of the Examination of Water and Wastewater*. The Contractor shall be responsible for the all costs associated with testing. At least one sample will be collected from the new main and one from each branch. In the case of mains greater than 2500 feet, samples will be collected along the length of the line when possible as well as at its end.
- B. Bacteriological tests must show complete absence of coliforms. If tests show presence of coliforms, the Contractor will be required to perform additional flushing and disinfection of the pipelines until such time acceptable tests are obtained, at no additional cost to the Owner.

**3.5 BASIS OF PAYMENT**

- A. Pipeline disinfection shall be considered incidental to waterline installation and no additional compensation shall be made for disinfection of waterline installed under the Contract.

**END OF SECTION**

## SECTION 15030

### PRESSURE AND LEAKAGE TESTS

#### PART 1 GENERAL

##### 1.1 Related Documents

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections, apply to this section.

##### 1.2 DESCRIPTION OF WORK

- A. General: The Contractor shall provide all labor, tools, equipment, and materials necessary to furnish and install buried valves in accordance with the plans and as specified herein.
- B. The Contractor shall test all piping, valves, and appurtenances installed under the Contract. Testing shall be performed concurrent with installation. Unless otherwise approved by the Engineer, no more than 1000 feet of pipe shall be installed without being tested.

##### 1.3 QUALITY ASSURANCE

- A. Codes and Regulatory Agencies: Perform all work in compliance with all applicable federal, state, and local codes and regulatory agencies.

##### 1.4 SUBMITTALS

- A. The Contractor shall prepare and submit to the Engineer schedules and procedures for testing of all parts of the water main installed in accordance with the Contract Documents. The schedule shall be submitted seven days prior to testing.

##### 1.5 REFERENCE SPECIFICATIONS

- A. This specification references standard specifications which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work must be in strict accordance with the reference standards.
- B. American Water Works Association:
  - 1. AWWA C600 - Installation of Ductile - Iron Water Mains and their Appurtenances.

#### PART 2 PRODUCTS

##### 2.1 EQUIPEMENT

- A. The pump, pipe connections, and all necessary apparatus for the pressure and leakage tests, including gauges and metering devices shall be furnished by the Contractor.

## PART 3 EXECUTION

### 3.1 GENERAL

- A. After the pipe has been laid, thrust blocking cured (5 days min.) and the trench completely or partially backfilled, the entire pipeline, or any section thereof, shall be subject to hydrostatic pressing and leak tests in accordance with AWWA 600, Section 4 - Hydrostatic Testing.
- B. The Contractor may, at his option, completely backfill the trench or partially backfill the trench over the center portion of each pipe section to be tested. The Engineer may however direct the Contractor to completely backfill the trench if local traffic or safety conditions require such action.
- C. The pipeline will be subjected to a hydrostatic pressure of no less than 100 psi above the normal operating pressure for operating pressures that do not exceed 200 psi. For operating pressures in excess of 200 psi, the pipeline will be subject to a hydrostatic pressure that is 1.5 times the normal operating pressure, but no more than the design rating of the pipe.
- D. After installation of a tapping sleeve and valve but prior to making the tap into the main, the tapping sleeve and valve assembly shall be tested. The required test pressure shall be determined in the same manner as for pipe but no pressure drop will be allowed during the test. Test pressure must be maintained for fifteen (15) minutes for acceptance.

### 3.2 FILLING AND TESTING

- A. Each segregated section of pipeline will be slowly filled with water ensuring that all air is expelled. Extreme care must be taken to ensure all air is expelled from the pipeline during the filling of pipe with water. The line shall stand full of water for 24 hours prior to testing to allow all air to escape. If necessary, tap the main at points of highest elevation so that air can be expelled as the pipe is filled with water. After successful completion of filling and air expulsion, but prior to testing, the corporation stops shall be removed and the taps tightly plugged.
- B. The specified test pressure, measured at the point of lowest elevation, will then be applied by means of a pump connection to the pipe in a manner satisfactory to the Engineer. If the elevation of the high point of the pipeline that is being tested is such that the pressure during testing will be below 85% of the required test pressure the Engineer will require a separate test to be performed on this section of pipeline. In lieu of a separate test the test pressure measured at the lowest elevation may be increased, within the pressure rating of the pipeline materials, such that resulting pressure at the highest point exceeds 85% of the required test pressure. The test pressure will not vary by more than +/- 5 psi and the test will be of at least two (2) hour duration.
- C. A leakage test will be conducted concurrently with the pressure test. Leakage is defined as the quantity of the water measured as make up water (volumetrically in a container or meter) that must be supplied into the newly laid pipeline to maintain pressure within 5 psi of the test pressure after the air in the pipeline has been expelled and the pipe filled with water.

- D. No pipeline installation will be accepted if the leakage is greater than that shown in the following table:

<u>Avg Test Pressure (psi)</u>	<u>Nominal Pipe Diameter (inches)</u>						
	<u>4"</u>	<u>6"</u>	<u>8"</u>	<u>12"</u>	<u>16"</u>	<u>20"</u>	<u>24"</u>
100	0.30	0.45	0.60	0.90	1.20	1.50	1.80
125	0.34	0.50	0.67	1.01	1.34	1.68	2.01
150	0.37	0.55	0.74	1.10	1.47	1.84	2.21
175	0.40	0.59	0.80	1.19	1.59	1.98	2.38
200	0.43	0.64	0.85	1.28	1.70	2.12	2.55
225	0.45	0.68	0.90	1.35	1.80	2.25	2.70
250	0.47	0.71	0.95	1.42	1.90	2.37	2.85
275	0.50	0.75	1.00	1.49	1.99	2.49	2.99
300	0.52	0.78	1.04	1.56	2.08	2.60	3.12
350	0.56	0.84	1.12	1.69	2.25	2.81	3.37

Allowable leakage per 1000 feet of pipeline (gph)

If the pipeline under test contains sections of various diameters, the allowable leaking will be the sum of the computed leakage for each size.

The table has been generated from the formula  $L = \frac{SDP^{1/2}}{133,200}$

where L is the allowable leakage in gallons per hour, S equals the length of pipe in feet, D is the nominal pipe diameter in inches, and P is the test pressure in PSIG.

Should any test disclosure damage or defective materials or leakage greater than that permitted, the Contractor shall at his own expense, locate and repair and/or replace defective materials. The tests shall be repeated until the leakage is within the permitted allowance and is satisfactory to the Engineer.

### 3.3 BASIS OF PAYMENT

- A. Hydrostatic and leakage testing shall be considered incidental to waterline installation and no additional compensation shall be made for testing or retesting.

END OF SECTION

## **APPENDIX A**

# SPECIFICATIONS

## **CONTROL PANEL NOTES:**

1. The control panel will be provided with aluminum inner-door, circuit breaker operators, duplex GFI receptacle, indicator lights, selector & push button switches, elapsed time meters
2. The main circuit breaker operator handles will extend through the inner-door.
3. The control panel will be provided with a painted steel back panel to mount circuit breakers, starters, fuses, relays, ground lugs and terminal blocks.
4. The alarm light will be mounted to the top of the control panel enclosure.
5. The alarm horn and silence push button will be mounted to the right side of the control panel enclosure.
6. The control panel will be provided with auxiliary contacts for connection to a remote alarm device.
7. Space (25%) will be provided in the control panel.
8. The control panel will be provided with plastic wireway for placing wire in neat bundles.
9. The control panel wire will be provided with numbered labels for easy identification in the field.
10. The control panel components, mounted on the inner door, will be labeled with engraved labels.
11. The control panel components will be labeled.
12. The electrical control panel will be "UL 698A" listed and labeled.

# OPERATIONS

## **SPECIAL NOTES:**

- The control panel is protected from damage due to lightning strikes by use of a lightning arrestor.
- The main circuit breaker shuts off all of the electrical power to the control and motor circuits.
- The motors will not operate in manual or automatic mode if the phase monitor senses low voltage, phase failure or phase reversal.
- Intrinsically safe relays are used to provide low voltage and current to float switches and sensors which are placed in hazardous areas.
- Elapsed time meters are used to monitor how long the motors have operated.
- A time delay relay is used to prevent both motors from starting simultaneously.
- The alarm test switch, labeled "On-Off-Test", allows personnel to test the audible and visual exterior alarms when the switch is placed in the "test" position.

## **MOTOR CONTROL:**

### **Manual Mode:**

Place the Hand-Off-Auto selector switch in the "Hand" position. The pump motor will run.

### **Auto Mode:**

1. Place the Hand-Off-Auto selector switch in the "Auto" position.
2. When the liquid level in the wet well rises to the "off" and "on" levels, the lead pump will run.
3. The pump will stop when the liquid level drops below the "off" level.
4. The alternating relay will index to choose the next pump as lead on the next cycle.
5. If the lead pump is running and liquid level continues to rise to the "lag on" level, the lag motor will run along with the lead motor until the level drops below the "off" level.

## Alarm:

**High Level:** The liquid level rises above the "high" level.

- The audible exterior alarm will sound and can be shut off by pressing the silence push button.
- The visual exterior alarm will flash.
- Auxiliary alarm contacts will signal a remote alarm device.

**Seal Fail:** Moisture breaks through the lower seal. Probes in the motor detect the moisture.

- An indicator light on the inner-door is illuminated.

*Note: The seal fail condition cannot be corrected without removing the motor from the wet well and repaired.*

- Auxiliary alarm contacts will signal a remote alarm device.

**Overtemperature:** The thermostat in the motor senses motor winding high temperature.

- The starter circuitry is interrupted and the motor stops.
- An indicator light on the inner-door is illuminated.
- The overtemperature alarm must be manually reset by pressing the "reset" push button.

*Note: The thermostat in the motor will automatically reset.*

- Auxiliary alarm contacts will signal a remote alarm device.

**Pump Fail:** The starter overload has tripped.

- The starter circuitry is interrupted and the motor stops.
- An indicator light on the inner-door is illuminated.
- Auxiliary alarm contacts will signal a remote alarm device.

**CONTROL PANEL SPECIFICATIONS:**

Station Type: Duplex  
 Pump Model: Myers, 7.5HP @ 28FLA  
 Panel Voltage: 230V, 3Ø  
 SCCR Minimum Rating: 5000 Amps  
 UL Listed: 698A  
 PDF Specs Attached: Yes

**OTHER REQUIREMENTS:**

Quantity	Part Number	Part Description	Construction Notes	Manufacturer
1.0	SCE36H3612SSLP	ENCLOSURE	NEMA TYPE 4X STAINLESS STEEL, 36" X 36" X 12"	SAGINAW
1.0	SCEDS36SS	DRIP SHIELD		SAGINAW
1.0	SCE36P36	BACK PANEL	PAINTED STEEL PLATE FOR MOUNTING COMPONENTS	SAGINAW
1.0	OEC36SD36A	SUB DOOR	HINGED ALUMINUM INNER DOOR	OEC
1.0	SPARE SPACE	SPARE SPACE, 25%		
1.0	1423572	POWER BLOCK	FOR MAIN INCOMING POWER	MARATHON
1.0	1423570	POWER BLOCK	FOR POWER DISTRIBUTION	MARATHON
2.0	985GP3	PUMP T-BLOCK	FOR FIELD WIRING OF MOTOR LEADS	MARATHON
8.0	6G38TSF	PUMP SENSOR T-BLOCK	FOR FIELD WIRING OF PUMP SENSORS	MARATHON
8.0	6G38TSF	FLOAT T-BLOCK	FOR FIELD WIRING OF 6 FLOAT SYSTEM: OFF, LEAD ON, LAG ON, HIGH LEVEL ALARM, (2) HIGH LEVEL TELEMETRY	MARATHON
24.0	6G38TSF	AUX T-BLOCK	DRY CONTACT FOR AUX ALARM	MARATHON
4.0	6G38TSF	CIRCUIT BREAKER T-BLOCKS	FOR FIELD WIRING OF DIALER AND SPARE LOADS	MARATHON
2.0	GL4717	GROUND BAR	FOR INCOMING POWER AND PUMP GROUNDS	LUGS DIRCT
1.0	9421LJ1	MAIN CB OPERATING HANDLE	ROTARY PADLOCKABLE ON SUB DOOR	SQUARE D
1.0	HDL26080	MAIN CB		SQUARE D
2.0	QOU240	PUMP CB1/CB2	MOUNTED ON BRACKET; OPERATOR THROUGH SUB DOOR	SQUARE D
1.0	QOU110	CONTROL CB3	MOUNTED ON BRACKET; OPERATOR THROUGH SUB DOOR	SQUARE D
1.0	QOU120	RECEPTACLE/HEATER CB4	MOUNTED ON BRACKET; OPERATOR THROUGH SUB DOOR	SQUARE D
1.0	QOU115	DIALER CB5	MOUNTED ON BRACKET; OPERATOR THROUGH SUB DOOR	SQUARE D
1.0	QOU120	SPARE CB6	MOUNTED ON BRACKET; OPERATOR THROUGH SUB DOOR	SQUARE D
1.0	SDSA1175	LIGHTNING ARRESTOR		SQUARE D

2.0	8536SDO1V02S	STARTER NEMA RATED	M1/M2	SQUARE D
6.0	FB38.3	OVERLOAD HEATER ELEMENT	OL1/OL2	SQUARE D
2.0	----	START RELAY	SUPPLIED BY CUSTOMER	
2.0	----	START CAPACITOR	SUPPLIED BY CUSTOMER	
2.0	----	RUN CAPACITOR	SUPPLIED BY CUSTOMER	
2.0	MDL3R	CONTROL/ALARM FUSES	MOUNTED IN FUSE BLOCK	BUSSMANN
2.0	MDL3R	SPARE CONTROL FUSES	SHIPPED LOOSE	BUSSMANN
2.0	S82021	CONTROL FUSE BLOCK		BUSSMANN
1.0	ARB120ABA	ALTERNATOR	ALT	DIVERSIFIED
1.0	RJ2SCA120	CONTROL RELAY	CR	IDEC
2.0	LLC54AA	SEAL FAIL PROBE RELAY	SL1/SL2	SSAC
2.0	RJ2SCA120	SEAL FAIL ALARM RELAY	R5/R6	IDEC
2.0	SPM120ADA	HEAT SENSOR RELAY	HS1/HS2	DIVERSIFIED
2.0	RU4SCA110	HEAT SENSOR RELAY	R1/R2	IDEC
2.0	RU4SCA110	PUMP FAIL RELAY	R3/R4	IDEC
4.0	ISS101	INTRINSICALLY SAFE RELAY	ISR1 THRU ISR4	SYMCOM
1.0	RU4SCA110	HIGH LEVEL RELAY	HL	IDEC
1.0	RJ2SCA120	SILENCE RELAY	SR	IDEC
1.0	RJ2SCA120	POWER FAIL RELAY	PF	IDEC
1.0	GE1AC10HA110	TIME DELAY TD1	FOR LAG PUMP DELAY	IDEC
4.0	SR2P06	RELAY SOCKET 2 POLE OCTAL		IDEC
2.0	SR3P06	RELAY SOCKET 3 POLE OCTAL		IDEC
5.0	SJ2S05BW	RJ RELAY SOCKET		IDEC
5.0	SY4S05	SOCKET FOR RU 4 POLE RELAY		IDEC
2.0	HW1S3TF20	HAND-OFF-AUTO SWITCH	22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
1.0	HW1S3TF20	ALARM ON-OFF-TEST SWITCH	22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
1.0	HW1S3TF20	ALTERNATOR LEAD-LAG SWITCH	22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
2.0	HWC01	N.C. CONTACT BLOCK		IDEC
1.0	HW1BM1F10B	SILENCE SWITCH	22MM OIL-TIGHT MOUNTED ON EXTERIOR RIGHT SIDE	IDEC
2.0	HW1BM1F10R	HEAT SENSOR RESET	MOUNTED IN SUB DOOR	IDEC
2.0	HW1P2FQDG120	RUN LIGHT	GREEN 22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
2.0	HW1P2FQDR120	SEAL FAIL LAMP	RED 22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC

2.0	HW1P2FQDR120	HEAT SENSOR LAMP	RED 22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
2.0	HW1P2FQDR120	PUMP FAIL LAMP	RED 22MM OIL-TIGHT MOUNTED IN SUB DOOR	IDEC
2.0	7220004-5003011	ELAPSED TIME METER	MOUNTED IN SUB DOOR	REDINGTON
1.0	RL3K	ALARM LIGHT	MOUNTED ON EXTERIOR BOTTOM SIDE ON RIGHT OF ENCLOSURE	OEC
1.0	TEKRU075CW	FLASHER		AIROTRONICS
1.0	870PN5	ALARM HORN	MOUNTED ON EXTERIOR RIGHT SIDE OF ENCLOSURE	EDWARDS
1.0	DAH1001A	PANEL HEATER		HOFFMAN
1.0	1597	GFCI RECEPTACLE	MOUNTED IN SUB DOOR	PASS SEYMOUR
1.0	698A	I-SAFE UL LABEL		UL
1.0	BLACK W/WHITE LETTERS	ENGRAVED LABELS/LEGEND PLATES	MOUNTED ON SUB DOOR AND SILENCE SWITCH	OEC
1.0	WW	WIRE WAY		PANDUIT
1.0	MISC SHOP MATERIALS	WIRING HARNESS		OEC
1.0	WARRANTY	ADDITIONAL WARRANTY	4 YEAR ADDITIONAL (5 YEAR TOTAL)	

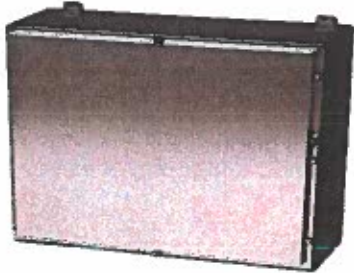


Your Enclosure Source\*

Saginaw Control and Engineering  
95 Midland Road Saginaw, MI 48638-5770  
(800) 234-6871 - Fax: (989) 799-4524  
SCE@SaginawControl.com

## SCE-36H3612SSLP

SCE-36EL3612SSLP



## Product Specifications:

**Part Number:** SCE-36H3612SSLP  
**Description:** Nema 4X LP Enclosure  
**Height:** 36.00"  
**Width:** 36.00"  
**Depth:** 12.00"  
**Price Code:** S3  
**List Price:** \$2,014.32  
**Catalog Page:** 254  
**Est. Ship Weight:** 113.00 lbs

### Construction

- 0.075 In. stainless steel Type 304.
- Continuously welded seams ground smooth.
- Flange trough collar around all sides of door opening.
- Oil-resistant door gasket.
- Collar studs provided for mounting optional subpanels.
- Hasp and staple for padlocking.
- Stainless steel continuous hinge.
- Removable print pocket furnished if height and width of enclosure is greater than 12 Inches.
- Ground stud on door.
- Stainless steel clamps on three sides door when greater than 30 inch wide.
- Welded mounting provision top and bottom of back.

### Industry Standards - (IS6)

- NEMA Type 3R, 4, 4X, 12 and Type 13
- UL Listed Type 3R, 4, 4X and 12
- CSA Type 4, 4X and 12
- IEC 60529
- IP 66

### Optional Accessories

- SCE-36P36 Subpanel, Bent
- SCE-36P36GALV Subpanel, Bent Galvanized
- SCE-BVK Breather Vent
- SCE-DS36SS Shield, S.S. Drip
- SCE-LPCLAMPSS Assembly, S.S. LP Clamp
- SCE-NADFKSS Kit, S.S. Swing-Out Panel Mounting
- SCE-QRLP Quick Release Clamp Assembly, LP Style (Stainle...

### Similar Part Numbers

- SCE-24H2406SSLP Nema 4X LP Enclosure
- SCE-24H2408SSLP Nema 4X LP Enclosure
- SCE-24H2412SSLP Nema 4X LP Enclosure
- SCE-24H3008SSLP Nema 4X LP Enclosure
- SCE-30H2408SSLP Nema 4X LP Enclosure
- SCE-30H2412SSLP Nema 4X LP Enclosure
- SCE-30H2416SSLP Nema 4X LP Enclosure
- SCE-30H3008SSLP Nema 4X LP Enclosure
- SCE-36H2408SSLP Nema 4X LP Enclosure
- SCE-36H2410SSLP Nema 4X LP Enclosure

### Installation Information

- Drip Shield Kit Assembly
- Swing Panel Assembly for LP Enclosures

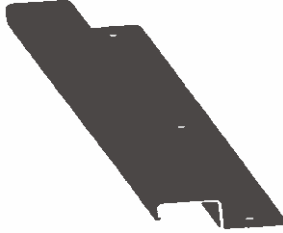


Your Enclosure Source<sup>®</sup>

Saginaw Control and Engineering  
 95 Midland Road Saginaw, MI 48638-5770  
 (800) 234-6871 - Fax: (989) 799-4524  
 SCE@SaginawControl.com

## SCE-DS36SS

### Product Specifications:



**Part Number:** SCE-DS36SS  
**Description:** Shield, S.S. Drip  
**Height:** 1.00"  
**Width:** 36.00"  
**Depth:** 3.00"  
**Price Code:** P2  
**List Price:** \$129.14  
**Catalog Page:** 360  
**Est. Ship Weight:** 4.00 lbs  
**Fits Enclosure Width B:** 36.00

#### Application

Protects door against dripping water and settling dust. Furnished with stainless steel screws and sealing washers. Kit made of stainless steel Type 304.

#### Options

\*Also available in stainless steel Type 316/316L.

#### Industry Standards - (IS17)

- NEMA Not Applicable
- UL Not Applicable
- CSA N/A

#### Similar Part Numbers

SCE-DS24SSShield, S.S. Drip  
 SCE-DS30SSShield, S.S. Drip  
 SCE-DS42SSShield, S.S. Drip  
 SCE-DS48SSShield, S.S. Drip

#### Installation Information

- Drip Shield Kit Assembly



## SCE-36P36

### Product Specifications:



**Part Number:** SCE-36P36  
**Description:** Subpanel, Bent  
**Height:** 33.00"  
**Width:** 33.00"  
**Depth:** 0.88"  
**Price Code:** P3  
**List Price:** \$118.99  
**Catalog Page:** 382  
**Est. Ship Weight:** 35.00 lbs  
**Edge Flanges:** Four  
**Configuration:** C

#### Finish

Powder Coated White.

#### Industry Standards - (IS17)

- NEMA Not Applicable
- UL Not Applicable
- CSA N/A

#### Similar Part Numbers

SCE-24P24Subpanel, Bent  
 SCE-24P24PCSubpanel, Flat  
 SCE-30P24Subpanel, Bent  
 SCE-30P30Subpanel, Bent  
 SCE-36P24Subpanel, Bent  
 SCE-36P30Subpanel, Bent  
 SCE-40P24Subpanel, Bent  
 SCE-42P24Subpanel, Bent  
 SCE-42P30Subpanel, Bent  
 SCE-42P36Subpanel, Bent

#### Installation Information

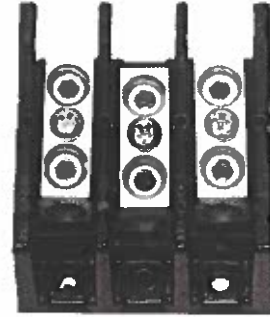
- Sub-Plate Layout & Grounding for 3/8-16

# Power Splicer Blocks















## 600 Volts

### Specifications:

- Connector, High Conductive Aluminum, Tin Plated
- CU Connector, High Conductive Copper, Tin Plated
- Amp Rating Based on NEC Table 310-16 Using 75° and 90° C Copper Wire
- \*Wire Connector Rated 90° C
- UL Recognized File No. E62806
- CSA Certified File No. LR19766
- CE



Power Blocks

Catalog #	Poles	Amps	Material	Connector Configuration	Line Wire Range	Openings Per Pole	Connector Configuration	Load Wire Range	Openings Per Pole
1411300	1	115	Thermoplastic	*	#2 - #14 AWG	1		#2 - #14 AWG	1
1412300	2								
1413300	3								
1414300	4								
1421552	1	115	Phenolic	*	#2 - #14 AWG	1		#2 - #14 AWG	1
1422552	2								
1423552	3								
1320572	Adder	175	Thermoplastic	*	#2/0 - #14 AWG	1		#2/0 - #14 AWG	1
1321572	1								
1322572	2								
1323572	3								
1421572	1	175	Phenolic	*	#2/0 - #14 AWG	1		#2/0 - #14 AWG	1
1422572	2								
1423572	3								
1402801	2	255	Phenolic		250 kcmil - #6 AWG	1		250 kcmil - #6 AWG	1
1403801	3								
1431123	1								
1432123	2	255	Phenolic		250 kcmil - #6 AWG	1		250 kcmil - #6 AWG	1
1433123	3								
1402303	2	310	Phenolic		350 kcmil - #6 AWG	1		350 kcmil - #6 AWG	1
1403303	3								
1431126	1	310	Phenolic		350 kcmil - #6 AWG	1		350 kcmil - #6 AWG	1
1432126	2								
1433126	3								
1331126	1	310	Thermoplastic		350 kcmil - #6 AWG	1		350 kcmil - #6 AWG	1
1332126	2								
1333126	3								
1331305	1	350	Thermoplastic	*	#2/0 - #14 AWG	2		#2/0 - #14 AWG	2
1332305	2								
1333305	3								
1441557	1	420	Phenolic		600 kcmil - #4 AWG	1		600 kcmil - #4 AWG	1
1442557	2								
1443557	3								
1331360	1	420	Thermoplastic		600 kcmil - #2 AWG	1		600 kcmil - #2 AWG	1
1332360	2								
1333360	3								
1331320	1	510	Thermoplastic	*	250 kcmil - #1/0 AWG	2		250 kcmil - #1/0 AWG	2
1332320	2								
1333320	3								
1451129	1	620	Phenolic		350 kcmil - #4 AWG	2		350 kcmil - #4 AWG	2
1452129	2								
1453129	3								

# Power Distribution Block!

600 Volts



## Specifications:

Connector High Conductive Aluminum,  
 Tin Plated  
 Amp Rating Based on NEC Table 310-6  
 Using 75°C Copper Wire  
 Wire Connector Rated 90°C  
 UL Recognized File No. E62806  
 CSA Certified File No. LR19766  
 CE

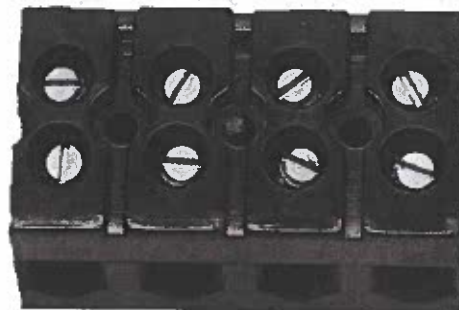
Openings rated for #4-#14 AWG are multiple wire rated:  
 (2) #10 CU Str, (2) #12 CU Str, and (2) #14 CU Str  
 Openings rated for #2-#14 AWG are multiple wire rated:  
 (2) #8 CU Str, (2) #10 CU Str, (2) #12 CU Str, And  
 (2) #14 CU Str

Catalog#	Poles	Amps	Material	Conne.cto. Configuration	Un@ Wire Range	Opening> ... fl<file	Connector Configuration	Load Wfr@ Range	Op<,nngs PerPole
141403	1	60	Themioplasti		#2-#14 AWG	1	Ej	#10-#18 AWG	2
141403	2								
141403	3								
141403	4								
141400	1	115	Themioplasti c	a	#2-#14 AWG	1	[ti]	#10-#18 AWG	4
141400	2								
141400	3								
141400	4								
132050	Added	175	Themioplastci		2/0-#14 AWG	1	[ti]	#4-#14 AWG	4
1321570	1								
132250	2								
132350	3								
1421570	1	175	Phenolic	ra	2/0-#14 AWG	1	[ti]	#4-#14 AWG	4
1422570	2								
142350	3								
132050	Added	175	Them1oplast	a	2/0-#14 AWG	1	me	#4-#14 AWG	6
1321580	1								
132250	2								
132350	3								
1402402	2	175	Phenolic	.	2/0-#14 AWG	1	[ii_e]	#4-#14 AWG	4
1403402	3								
1402401	2	175	Phenolic		2/0-#14 AWG	1	[ii_e]	#4-#14 AWG	6
1403401	3								
1402404	2	310	Phenolic		350 kemi -#6AWG	1	e	#2/0#14 AWG	6
1403404	3								
1331554	1	310	Them,oplast		350 kemi -#6AWG	1	1801	#2/0#14 AWG	2
1332554	2								
1333554	3								
1441410	1	335	Phenolic		400 kemi -#6AWG	1	me	#2-#14 AWG	6
1442410	2								
1443401	3								
1431552	1	335	Phenolic		400 kemi -#6AWG	1	[ii_e]	#2-#14 AWG	4
1432552	2								
1433552	3								
1431553	1	335	Phenolic		400 kemi -#6AWG	1	me	#2-#14 AWG	6
1432553	2								
1433553	3								
1441560	1	335	Phenolic		400 kemi -#6AWG	1	iiiiil	#2-#14 AWG	8
1442560	2								
1443560	3								
1331552	1	335	Themioplastic		400 kemi -#6AWG	1	[ii_e]	#2-#14 AWG	4
1332552	2								
1333552	3								

# Heavy Duty Terminal Blocks

## 985 GP Series - Deadfront Type

600 Volts

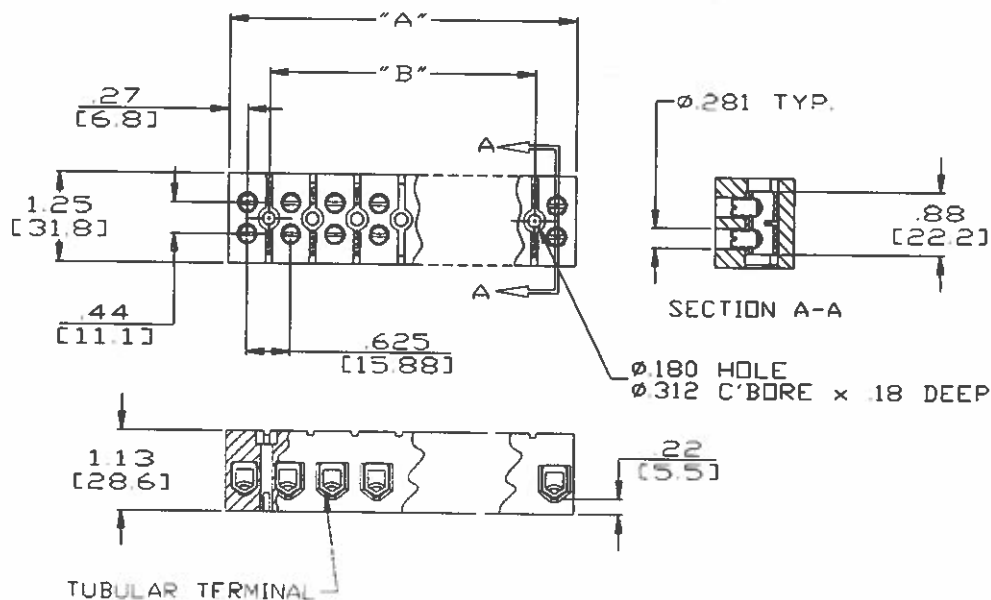


### Specifications:

- Base, General Purpose Phenolic, 150° C
- Connector, Aluminum, Tin Plated
- Screws, Steel, Nickel Plated
- Wire Range #4-#18 Awg Copper Wire – 85 Amps
- Multiple Wire Combinations For Solid Or Stranded Copper Wire Are:
  - 1 #18 Awg to 1 #4 Awg
  - 2 #8 Awg
  - 2 to 4 #10 Awg
  - 2 to 4 #12 Awg
  - 2 to 6 #14 Awg
  - 2 to 6 #16 Awg
  - 2 to 8 #18 Awg
- .625 Center-Line Spacing
- UL Recognized File No. E47811
- CSA Certified File No. LR19766
- CЄ - Wire Range Reduced #6-#18 Awg

Catalog #	# of poles	Dimensions	
		A	B
985 GP 02	2	1.16	N/A
985 GP 03	3	1.78	0.63
985 GP 04	4	2.41	1.25
985 GP 05	5	3.03	1.88
985 GP 06	6	3.66	2.50
985 GP 07	7	4.28	3.13
985 GP 08	8	4.91	3.75
985 GP 09	9	5.53	4.38
985 GP 10	10	6.16	5.00
985 GP 11	11	6.78	5.63
985 GP 12	12	7.41	6.25

MM = Dim X 25 4

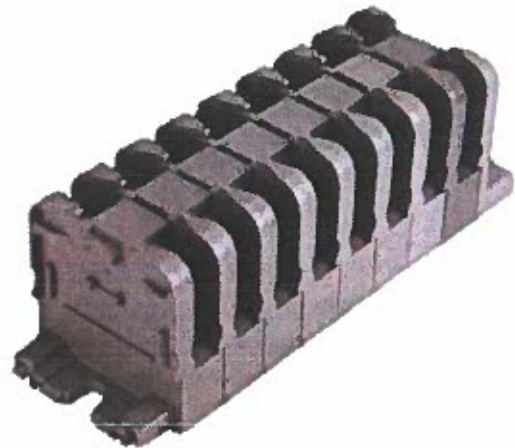


Heavy Duty Terminal Blocks

# Sectional Terminal Blocks

3/8" Sectional - 600 Volts  
32 Circuits Per Foot

Channel (C), Flat (F)  
& (DIN) Mount



### Specifications:

- UL Recognized File No. XCFR2.E62806
- CSA Certified File No. LR 19766
- Wire termination torque 16 lb-in
- CE

Tubular Screw Connector (6G38 TS)

### Materials:

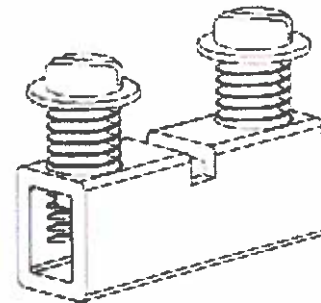
Base - Gray Thermoplastic, 125°C (RTI)  
Tubular Screw Connector- Copper, Tin Plated  
Screw - #10-32 Steel, Nickel Plated  
50 Amps (40 Amps CSA)

### Wire Ranges:

Single and Multiple Wire Combinations:

Stranded CU  
(1) #8 - 18 AWG  
(1-3) #12 AWG  
(1-4) #14

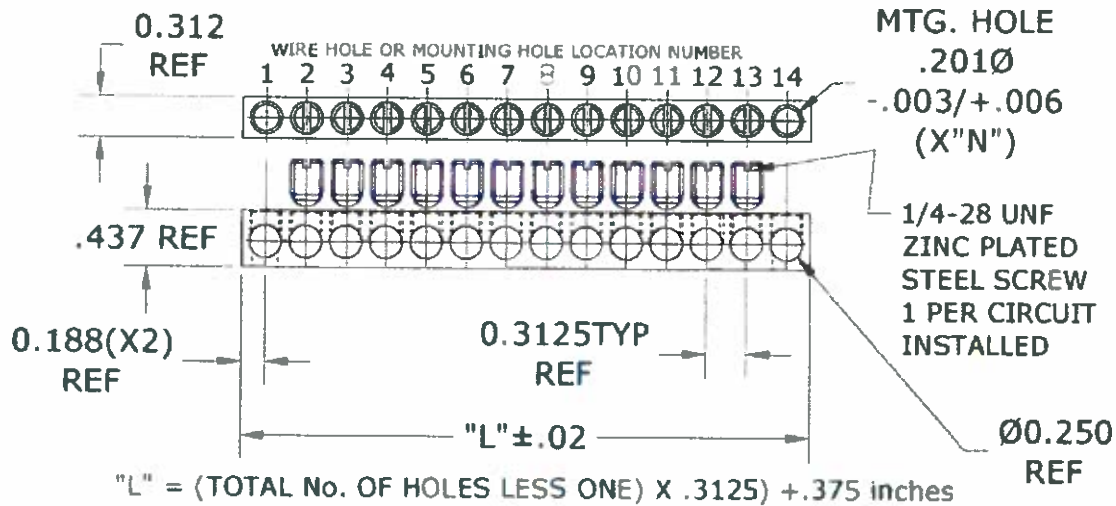
Solid CU  
(1) #10 - #16 AWG  
(1-3) #12 AWG  
(1-4) #14 or #16 AWG



### Ordering Code:

6G38 TS F	For flat mount block	Std pk 100	See Figure 2 On Page 116
6G38 TS C	For channel mount block	Std pk 100	See Figure 1 On Page 116
6G38 TS DIN	For DIN mount block	Std pk 25	See Figure 3 On Page 116

## STANDARD STOCK NEUTRAL BARS WITH MOUNTING HOLES



[Back to Top](#)

### UL & CSA AGENCY APPLICATION NOTES:

- UL Recognized ("UR" mark) Class ZMVV2 and "CSA" Certified (CSA mark)
- Installation must be carried out only by qualified electricians in accordance with all applicable NEC & UL/CSA standards for the approved application.
- Approved for 90 ° C Temperature Rating Wire, CU9AL
- Amp Rated at 85 Amps for Copper wire and 70 Amps for Aluminum wire
- Wire range, American Wire Gauge AWG 4-14 CU (copper wire), 4-12 Al (aluminum wire) Dual Rated, Solid & Stranded, Industrial rigid stranding wire.
- Tightening torques, 4-6 AWG = 45 lb-in, 8 AWG = 40 lb-in, 10-14 AWG = 35 lb-in
- The bar shall be prevented from turning by close fitting walls, or other turn preventive features such as two mounting holes.
- The bar shall not be mounted to a bus bar to act as a power distribution means to or from that bar.
- The bar is designed to be used as a neutral bar for ground or power.
- The bar is for use only in complete equipment where the suitability of the combination is determined & approved by UL
- The mounting screw is to be size #10-32 UNF. The proper use of washers to distribute screw clamping forces on the aluminum should be employed. Bellevilles and lock nuts should be considered in case of vibration.
- The screw will hold the smaller wires when the appropriate torque for the small wire is fully applied
- Dry locations only.

### CONSTRUCTION NOTES:

- The tolerance between mounting holes is +/- .015"
- The mounting hole is .201 +.006/-0.003.
- The listed overall length of each bar is +/- .020
- Material is High Strength Tempered aluminum 6160 with conductivity approx. 43% IACS.
- Aluminum body is Tin Plated to resist oxidation and galvanic corrosion.
- Screws are Zinc Plated Steel with Trivalent (Cr+3) Chromate conversion top layer.

GL4717

Product availability : Stock - Normally stocked in distribution facility



Price\* : 171.00 USO

Ofis erian at iy

Sustainable offer status	Not Green Premium product	{
RoHS (date code: YYWW)	Will be compliant on 3Q2014	£
	Will be compliant on 3Q2014	0
REACH	Reference not containing SVHC above the threshold	0
	Reference not containing SVHC above the threshold	g

Ordering and shipping details

Category	21731 - 9421 L & MISC	•
Discount Schedule	CP1	i
GTIN	00785901831303	E
Nbr. of units in pkg.		iii
Package weight(Lbs)	5 3100000000000005	•
Returnability	Y	0
Country of origin	MX	ff

Contractual warranty

Warranty period	18 months	•
-----------------	-----------	---

Main

Product or component type	Circuit Breaker Mechanism	g
Circuit breaker name	MG-NSF 250 A PowerPact H or J 250 A	g

Complementary

Product compatibility	NEMA 1/3R/12 enclosure	fo
-----------------------	------------------------	----

0  
1  
2  
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R  
S  
T  
U  
V  
W  
X  
Y  
Z

Length	6 in
Shaft type	Standard

# PowerPact™ H-, J-, and L-Frame Circuit Breakers

## Circuit Breakers

### H- and J-Frame Catalog Numbers

#### Unit-Mount Circuit Breaker Catalog Numbers

**Table 14: PowerPact H-Frame 150 A Unit-Mount<sup>1</sup> Thermal-Magnetic Circuit Breakers (600 Vac, 250 Vdc) with Factory Sealed Trip Unit (Suitable for Reverse Connection)**

Current Rating @ 40 C	Fixed AC Magnetic Trip		Interrupting Rating								
			D		G		J <sup>2</sup>		L <sup>2</sup>		
	Hold	Trip	Standard (80%) Rated	100% Rated <sup>3</sup>	Standard (80%) Rated	100% Rated <sup>3</sup>	Standard (80%) Rated	100% Rated <sup>3</sup>	Standard (80%) Rated	100% Rated <sup>3</sup>	
<b>H-Frame, 150 A, 2P, 600 Vac 50/60Hz, 250 Vdc<sup>4</sup></b>											
15 A	350 A	750 A	HDL26015	HDL26015C	HGL26015	HGL26015C	HJL26015	HJL26015C	HLL26015	HLL26015C	
20 A	350 A	750 A	HDL26020	HDL26020C	HGL26020	HGL26020C	HJL26020	HJL26020C	HLL26020	HLL26020C	
25 A	350 A	750 A	HDL26025	HDL26025C	HGL26025	HGL26025C	HJL26025	HJL26025C	HLL26025	HLL26025C	
30 A	350 A	750 A	HDL26030	HDL26030C	HGL26030	HGL26030C	HJL26030	HJL26030C	HLL26030	HLL26030C	
35 A	400 A	850 A	HDL26035	HDL26035C	HGL26035	HGL26035C	HJL26035	HJL26035C	HLL26035	HLL26035C	
40 A	400 A	850 A	HDL26040	HDL26040C	HGL26040	HGL26040C	HJL26040	HJL26040C	HLL26040	HLL26040C	
45 A	400 A	850 A	HDL26045	HDL26045C	HGL26045	HGL26045C	HJL26045	HJL26045C	HLL26045	HLL26045C	
50 A	400 A	850 A	HDL26050	HDL26050C	HGL26050	HGL26050C	HJL26050	HJL26050C	HLL26050	HLL26050C	
60 A	800 A	1450 A	HDL26060	HDL26060C	HGL26060	HGL26060C	HJL26060	HJL26060C	HLL26060	HLL26060C	
70 A	800 A	1450 A	HDL26070	HDL	MAIN CB		70C	HJL26070	HJL26070C	HLL26070	HLL26070C
80 A	800 A	1450 A	HDL26080	HDL			80C	HJL26080	HJL26080C	HLL26080	HLL26080C
90 A	800 A	1450 A	HDL26090	HDL			90C	HJL26090	HJL26090C	HLL26090	HLL26090C
100 A	900 A	1700 A	HDL26100	HDL26100C	HGL26100	HGL26100C	HJL26100	HJL26100C	HLL26100	HLL26100C	
110 A	900 A	1700 A	HDL26110	HDL26110C	HGL26110	HGL26110C	HJL26110	HJL26110C	HLL26110	HLL26110C	
125 A	900 A	1700 A	HDL26125	HDL26125C	HGL26125	HGL26125C	HJL26125	HJL26125C	HLL26125	HLL26125C	
150 A	900 A	1700 A	HDL26150	HDL26150C	HGL26150	HGL26150C	HJL26150	HJL26150C	HLL26150	HLL26150C	
<b>H-Frame, 150 A, 3P, 600 Vac 50/60Hz, 250 Vdc</b>											
15 A	350 A	750 A	HDL36015	HDL36015C	HGL36015	HGL36015C	HJL36015	HJL36015C	HLL36015	HLL36015C	
20 A	350 A	750 A	HDL36020	HDL36020C	HGL36020	HGL36020C	HJL36020	HJL36020C	HLL36020	HLL36020C	
25 A	350 A	750 A	HDL36025	HDL36025C	HGL36025	HGL36025C	HJL36025	HJL36025C	HLL36025	HLL36025C	
30 A	350 A	750 A	HDL36030	HDL36030C	HGL36030	HGL36030C	HJL36030	HJL36030C	HLL36030	HLL36030C	
35 A	400 A	850 A	HDL36035	HDL36035C	HGL36035	HGL36035C	HJL36035	HJL36035C	HLL36035	HLL36035C	
40 A	400 A	850 A	HDL36040	HDL36040C	HGL36040	HGL36040C	HJL36040	HJL36040C	HLL36040	HLL36040C	
45 A	400 A	850 A	HDL36045	HDL36045C	HGL36045	HGL36045C	HJL36045	HJL36045C	HLL36045	HLL36045C	
50 A	400 A	850 A	HDL36050	HDL36050C	HGL36050	HGL36050C	HJL36050	HJL36050C	HLL36050	HLL36050C	
60 A	800 A	1450 A	HDL36060	HDL36060C	HGL36060	HGL36060C	HJL36060	HJL36060C	HLL36060	HLL36060C	
70 A	800 A	1450 A	HDL36070	HDL36070C	HGL36070	HGL36070C	HJL36070	HJL36070C	HLL36070	HLL36070C	
80 A	800 A	1450 A	HDL36080	HDL36080C	HGL36080	HGL36080C	HJL36080	HJL36080C	HLL36080	HLL36080C	
90 A	800 A	1450 A	HDL36090	HDL36090C	HGL36090	HGL36090C	HJL36090	HJL36090C	HLL36090	HLL36090C	
100 A	900 A	1700 A	HDL36100	HDL36100C	HGL36100	HGL36100C	HJL36100	HJL36100C	HLL36100	HLL36100C	
110 A	900 A	1700 A	HDL36110	HDL36110C	HGL36110	HGL36110C	HJL36110	HJL36110C	HLL36110	HLL36110C	
125 A	900 A	1700 A	HDL36125	HDL36125C	HGL36125	HGL36125C	HJL36125	HJL36125C	HLL36125	HLL36125C	
150 A	900 A	1700 A	HDL36150	HDL36150C	HGL36150	HGL36150C	HJL36150	HJL36150C	HLL36150	HLL36150C	

<sup>1</sup> Standard lug kit: AL150HD Terminal wire range 14–3/0 AWG Al or Cu.

<sup>2</sup> UL Listed/CSA Certified as current limiting circuit breakers.

<sup>3</sup> 100% rated circuit breakers have copper lugs and can be used with copper wire only.

<sup>4</sup> HD and HG circuit breakers are true 2-pole construction.

**QOU and QYU Unit Mount  
Miniature Circuit Breakers  
Class 720**



**Low Ampere QOU  
Miniature Circuit  
Breakers**

**General Specifications Common to All Low Ampere  
QOU Circuit Breakers**

- For convenient flush mount, surface mount or DIN mount (symmetrical rail 35 x 7.5 DIN/EN 50 022)
- Single handle with internal common trip
- Terminal lug wire size (1) #14-#2 AWG Cu or Al
- Reversible line and load lugs
- Field-installable quick connectors
- UL Listed 48 Vdc (5,000 AIR)
- UL Listed as HACR Type—10-70 A



**High Ampere  
QOU Circuit Breakers**

**General Specifications  
Common to All High Ampere  
QOU Circuit Breakers**

- Flush mount, surface mount, and DIN rail mount
- Internal common trip
- Lugs supplied in standard position only
- Terminal lug wire size (1) #12-#2/0 AWG Cu or Al
- UL Listed 60 Vdc per pole (5000 AIR)—  
Note: except switches
- UL Listed as HACR type—80-125 A

**QOU Miniature Circuit Breakers**

QOU unit mount miniature circuit breakers (cable-in/cable-out) are ideal for OEM applications. They have Square D's unique Visi-Trip feature and can be DIN rail-mounted or surface- or flush-mounted using mounting feet.

Ampere Rating	1-pole 120 Vac		2-pole 120/240 Vac		2-pole 240 Vac		3-pole 240 Vac	
	Catalog No.	Price	Catalog No.	Price	Catalog No.	Price	Catalog No.	Price

**10,000 AIR**

10	QOU110	\$26.80	QOU210	\$114.00	QOU210H	QOU310	\$190.00	
15	QOU115		QOU215		QOU215H			QOU315
20	QOU120		QOU220		QOU320			
25	QOU125		QOU225		QOU325			
30	QOU130		QOU230		QOU330			
60	QOU160		QOU260		QOU360			
70	QOU170	52.00	QOU270	114.00	QOU370a	242.00		
80	QOU180a	117.00	QOU280a	164.00	QOU380a	277.00		
90	QOU190a		QOU290a		QOU390a			
100	QOU1100a		QOU2100a		QOU3100a			
125	...	...	QOU2125a	301.00	...	...		

**22,000 AIR**

15	QOU115VH	67.00	QOU215VH	126.00	QOU315VH	284.00
20	QOU120VH		QOU220VH		QOU320VH	
25	QOU125VH		QOU225VH		QOU325VH	
30	QOU130VH		QOU230VH		QOU330VH	
35	QOU135VH	67.00	QOU235VH	126.00	...	...
40	QOU140VH		QOU240VH		...	
45	QOU145VH		QOU245VH		...	
50	QOU150VH		QOU250VH		...	
60	QOU160VH		QOU260VH		...	

**QOU-HM**

High magnetic trip circuit breakers are recommended for applications where high initial inrush may occur and for individual dimmer applications.

15	QOU115HM	26.80	...	...	...	...	...
20	QOU120HM		...	...	...	...	...

**QYU UL1077 Recognized Supplementary Protectors (5,000 AIR)**

		1-pole 277 Vac					
15	QYU115	81.00	...	...	...	...	...
20	QYU120		...	...	...	...	...
25	QYU125		...	...	...	...	...
30	QYU130		...	...	...	...	...

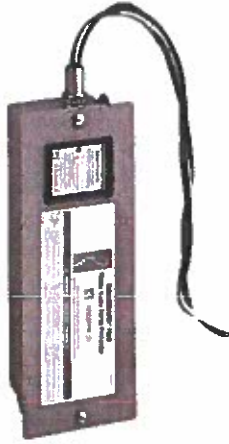
**QOU Non-Automatic Switches**

Non-automatic switches have the same physical packaging as miniature circuit breakers, but provide no overcurrent or short circuit protection. They are UL Listed per UL1087 and are CSA certified.

60	...	...	...	QOU200	58.00	QOU300	180.00
100	...	...	...	QOU2000	164.00	QOU3000	277.00
125	...	...	...	QOU20001	301.00	QOU30001	477.00

<sup>a</sup> High-ampere QOUs use appropriately sized terminal lugs and accessories.

6 CIRCUIT BREAKERS



SDSB1175C



QO2175SB



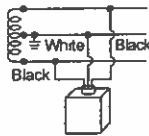
HOM2175SB



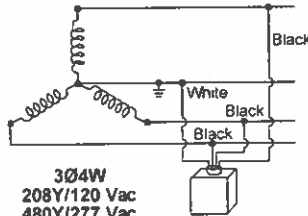
SDSA1175



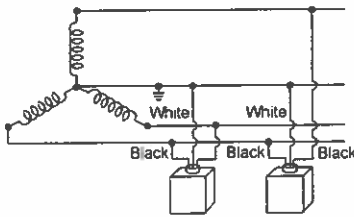
SDSA3650



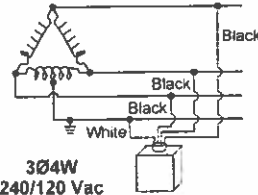
One SDSA1175 on 120/240 Vac Circuit



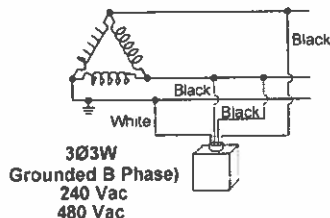
3Ø4W  
 208Y/120 Vac  
 480Y/277 Vac  
 600Y/347 Vac



Two SDSA1175 on 208Y/120 Vac Circuit



3Ø4W  
 240/120 Vac



3Ø3W  
 Grounded B Phase)  
 240 Vac  
 480 Vac

**SURGEBREAKER® PLUS**  
**Transient Voltage Surge Suppressor**

Suitable for use in service entrance locations; meets requirements of NEC® Article 280, UL Listed 1449, 2nd Edition, and meets ANSI/IEEE C62.41-1991.

- AC line protection
- Four line telephone (Digital/Analog POTS) protection
- Two line coaxial protection
- Suitable for indoor applications only
- Flush or surface mounting
- LED status indicator
- Modular design

**Single Phase Three Wire—120/240 Vac**

Description	Catalog Number	Price
SURGEBREAKER PLUS	SDSB1175C	\$420.

**SURGEBREAKER**  
**Secondary Surge Arrester**

Suitable for use in service entrance locations; meets requirements of NEC Article 280.

- cUL<sub>us</sub> Listed secondary surge arresters; QO2175SB also CSA Certified
- Meet ANSI/IEEE C62.11-1993
- QO2175SB for QO® load centers and combination devices, NQOD panelboards
- HOM2175SB for HOMELINE® load centers and combination devices
- Plug-on design requires two pole spaces
- LED indicates operational status

Description	Catalog Number	Price
QO SURGEBREAKER cUL <sub>us</sub> Listed Secondary Surge Arrester 150 Vac line-to-ground maximum	QO2175SB	\$106.
HOMELINE SURGEBREAKER cUL <sub>us</sub> Listed Secondary Surge Arrester 150 Vac line-to-ground maximum	HOM2175SB	106.

**Hard-Wired Secondary Surge Arrester**

Suitable for use in service entrance locations; meets requirements of NEC Article 280

- cUL<sub>us</sub> Listed and CSA Certified secondary surge arresters
- Meet ANSI/IEEE C62.11-1993
- Suitable for indoor and outdoor applications
- LED indicates operational status

Description	Catalog Number	Price
SECONDARY SURGE ARRESTER For 1Ø3W systems 150 Vac phase-to-ground maximum.	SDSA1175 a	\$ 81.
SECONDARY SURGE ARRESTER For 3Ø systems. 600 Vac phase-to-ground maximum b	SDSA3650	165.

a See page 1-11 for QOSAMK mounting kit for installation in QO load centers.  
 b Do not use on ungrounded systems. Systems must be solidly grounded.

For additional information, reference Catalog #6671CT9701R2/02.



Type SCO3  
Size 1, 3-Pole Starter

**General Information**

Type S magnetic starters are used for full-voltage starting and stopping of AC squirrel cage motors. Motor overload protection is provided via melting alloy type thermal overload relays. Type S starters are available in NEMA Sizes 00 through 7, and are designed for operation at 600 Vac, 50 to 60 Hz.

**Solid State Overload Relay Protection (MOTOR LOGIC®)**

These ambient insensitive overload relays are available on Sizes 00 through 6 and standard on size 7. They provide phase loss, phase unbalance protection and a power LED indication. To order, add Form H10 (for Class 10), H20 (for Class 20), or H30 (for selectable trip class protection). For more information about MOTOR LOGIC, see pages 16-98, 16-112 and 16-113.

**3-Pole Polyphase—600 Vac Maximum—50–60 Hz**

Note that prices shown do not include thermal units. Devices require 3 thermal units (Sizes 00–6). Standard trip thermal units are \$14.30 each. See page 16-129 for selection information.

Table 16.38:

NEMA Size	Continuous Current Ratings	Motor Voltage	Max. Hp	Open Type		NEMA 1 General Purpose Enclosure		NEMA 4 & 4X Watertight, Dusttight Brushed Stainless Steel Enclosure (Size 0-5) <sup>a</sup>		NEMA 4X Watertight, Dusttight, Corrosion-Resistant Glass-Polyester Enclosure	
				Type	\$ Price	Type	\$ Price	Type	\$ Price	Type	\$ Price
00	9	200 230 460 575	1-1/2 1-1/2 2 2	SAO12b	257.	SAG12b	279.	Use Size 0		Use Size 0	
0	18	200 230 460 575	3 3 5 5	SBO2b	323.	SBG2b	345.	SBW12b	678.	SBW22b	678.
1	27	200 230 460 575	7-1/2 7-1/2 10 10	SCO3b	371.	SCG3b	393.	SCW13b	735.	SCW23b	735.
2	45	200 230 460 575	10 15 25 25	SDO1b	674.	SDG1b	773.	SDW11b	1457.	SDW21b	1457.
3	90	200 230 460 575	25 30 50 50	SEO1b	1092.	SEG1b	1288.	SEW11b	2253.	SEW21b	2817.
4	135	200 230 460 575	40 50 100 100	SFO1b	2498.	SFG1b	2900.	SFW11b	4651.	SFW21b	5690.
5	270	200 230 460 575	75 100 200 200	SGO1b	6101.	SGG1b	6838.	SGW11b	10530.	—	—
6	540	200 230 460 575	150 200 400 400	SHO2b	14504.	SHG2b	19254.	SHW2b	24002.	—	—
7	810	200 230 460 575	— 300 600 600	SJO2b	20837.	SJG2b	25587.	SJW2b	30335.	—	—

<sup>a</sup> Size 6 and 7 are rated NEMA 4 only, painted sheet steel  
<sup>b</sup> Coil voltage code must be specified to order this product. Refer to standard coil voltage codes shown below

Table 16.39: Coil Voltage Codes

Voltage		Code	\$ Price Adder
60 Hz	50 Hz		
24 <sup>c</sup>	—	V01	No Charge
120 <sup>d</sup>	110	V02	No Charge
208	—	V08	No Charge
240	220	V03	No Charge
277	—	V04	No Charge
480	440	V06	No Charge
600	550	V07	No Charge
Specify	Specify	V99	23.70

<sup>c</sup> 24 V coils are not available on Sizes 4–7. On Sizes 00–3, where 24 V coils are available, Form S (separate control) must be specified (i.e., order as 8536SBO2V01S).  
<sup>d</sup> 120 Volt Polyphase contactors are wired for separate control. Form S (separate control) must be specified (i.e., order as 8536SCO2V02S).  
Note: For voltage codes used with control transformers, see page 16-111.  
Form S (separate control) is used when a separate source of power is available for the control (coil) voltage.  
Form S is supplied at no charge.

Dimensions ..... page 16-22  
Factory Modifications (Forms) ..... page 16-110  
Separate Enclosures (Class 9991) ..... page 16-103  
Replacement Parts (Class 9998) ..... page 16-118  
Type S Accessories (Class 9999) ..... page 16-121

For How to Order Information, see page 16-11.

M1/M2



# PASS & SEYMOUR®

## Specification Grade Self-Test GFCIs 15 & 20A, 125VAC

# II legrand®

### TECHNICAL SPECIFICATIONS

#### 3rd Party Compliance

cULus Listed File Number E42190, Standard UL498 Attachment Plugs and Receptacles, UL943 GFCIs. Federal Specification WC596, Hospital Grade. Standard CSA C22 2 No. 42 General Use Receptacles, CSA C22.2 No. 144 GFCIs. Conforms to NEMA WD-1 and WD-6.

#### Performance

##### Electrical

Dielectric Voltage	Withstands 1500V minimum
Trip Level	4 to 6 mA
Trip Time	.025 Second Nominal
Frequency	60 Hz
Maximum Working Voltage	125VAC
Voltage Range	102-132VAC

##### Mechanical

Terminal Identification	Terminals identified in accordance with UL498 (Hot, White, Green)
Terminal Accommodation	#14 AWG - #10 AWG solid or stranded copper conductor only
Product Identification	Ratings are a permanent part of device

##### Environmental

Operating Temperature	-35°C to +66°C
Maximum Humidity	95%
Flammability	UL94 V2

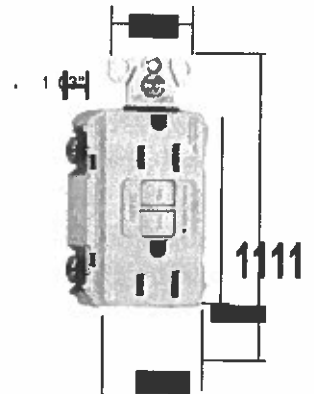
#### Material Specs

Face: Nylon  
 Body: Nylon  
 Contacts: .03" Brass ( 8)  
 Mounting Straps: Galvanized Steel  
 Terminal Screws : Nickel-Plated Steel #8 - 32  
 Hex Head Grounding Screw: Steel (Green)  
 Flat Head Mounting Screws: Zinc-Plated Steel  
 Test/Reset Buttons : Nylon  
 Auto-Ground Clip: Brass Alloy  
 \*Nightlight Lens: Lexan®  
 \*\*Tamper-Resistant Shutter: Thermoplastic

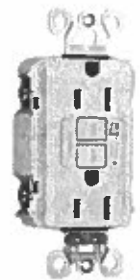
\*For 1597NTL and 2097NTL Nightlight versions only.  
 \*\*For 1597TR and 2097TR Tamper-Resistant versions only.

#### Warranty

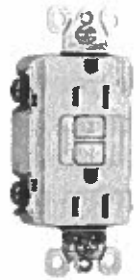
1 Year



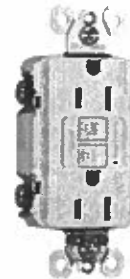
Dimensions for  
15 & 20 Amp



Audible Alarm



Nightlight/GFCI



Weather-Resistant



Tamper-Resistant

## Project- Andover Lift station- Replacement

### **DIESEL GENERATOR SET SPECIFICATION**

Diesel fueled standby generator set rated 230 Volts, Three Phase, 24kW/30kVA, 72 amperes at max of 8200 feet altitude, 95°F, KOHLER model 20REOZK with a 4D8.3 alternator frame capable of starting motor loads of 90 SkVA with an instantaneous maximum voltage dip of 35%. Provide all accessories as noted below including-Battery Charger 6 amp/120 v., sealed lead acid batteries, rack and cables, Block Heater (120 v, 700 watts), Flexible Fuel Lines, Rodent Guards, Run Relay, and 5 output dry contacts. Generator will include an internally mounted 100 % rated output breaker-100 A. for pump loads. Provide remote emergency stop button-Pilla model GS series with clear protective cover # PILCLHCOV1(Nema 4X rated), Sound and weather enclosure rated for 65 dB(A) @23 ft., U. L. listed 142, double wall subbase fuel tank sized to run a generator for 41 hours at full load (87 gallons). APM 402 controller with timers, sensors, indicators and meters as required by local codes shall be provided. The generator control logic shall be microprocessor based with inherent digital communications capability. State of Ohio Fire Marshal requirements and accessories include- 5-gallon spill containment, 12 ft. vent above grade, combustible liquids decal and high fuel switch. Tank installation requirements should follow Ohio Fire Code Chapter 34 and requirements of NFPA30(2008) edition. Final fuel fill-up is provided by installing contractor. System is UL 2200 and NFPA110 Level 1.

Total installed weight for diesel generator, enclosure and full subbase fuel tank- 2,785 lbs.(with fuel), 2,155 lbs. ( no fuel); total footprint before pad dimensions- 101.4" length \* 34.7" wide \* 61.9" ht.

Include One year parts and labor warranty; Coverage includes not less than 2000 hours or one year from startup date. Include (2) operations manuals.

### **AUTOMATIC SWITCH SPECIFICATIONS**

**Automatic Transfer switch** - Provide Qty. (one) ATS Automatic transfer switches: Qty. (1) rated at 100 amperes, 3 Pole, 3 wires, solid neutral, 240 volt/ 3 phase, mounted in a NEMA 4X stainless steel enclosure, Kohler model KSS-AFTF-0100S. Provide all sensors, indicators and timers as required by local code and monitors for in phase transfer, phase rotation, single phase loss, low voltage, high voltage, low frequency and high frequency. The automatic transfer switch logic shall be microprocessor based with inherent digital communications and LCD display capability.

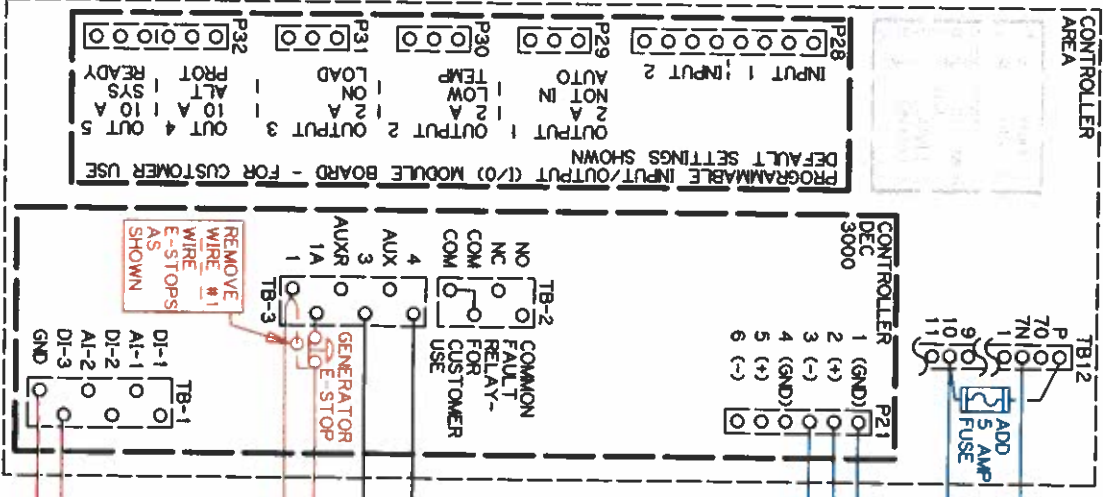
Include One year parts and labor warranty

**Startup/Site Testing** - Startup to be performed by factory authorized technician. and includes a 2 (two) hour load test with load bank provided by generator supplier.

**Contact - Buckeye Power Sales- John Sidol, office# 330-998-7061, mobile# 330-715-5288**  
[jsidol@buckeyepowersales.com](mailto:jsidol@buckeyepowersales.com)

# FIELD WIRING DEC3000 CONTROLLER

## GENERATOR CONTROLLER AREA



CUSTOMER SUPPLIED POWER

SEE LABEL ON BLOCK HEATER HOUSING FOR CORRECT VOLTAGE

CIRCUIT FOR 2500W BLOCK HEATER  
120VAC 30A  
208/240VAC 20A  
480VAC 20A

OUTLET FOR CONVENIENCE 120VAC 20A

OUTLET FOR BATTERY RECHARGE 120VAC 20A

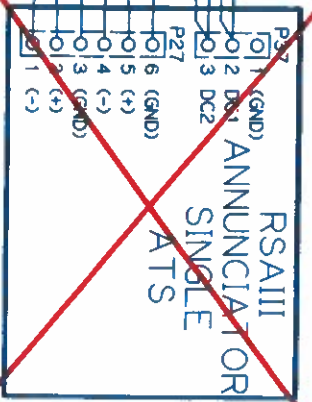


ALL CONDUCTORS WITHIN THIS RANGE MAY SHARE THE SAME CONDUIT. AC CONDUCTORS MUST USE A DIFFERENT CONDUIT.

BELDEN 9841 TWISTED SHIELDED PAIR

18-22 GA. FUSED BATTERY POWER RED AND BLACK IF POSSIBLE

ADDL RS(AII)(S) (IF USED)



SEE 'A' BELOW (A)

OPTIONAL CUSTOMER SUPPLIED REMOTE GENERATOR RUN SWITCH

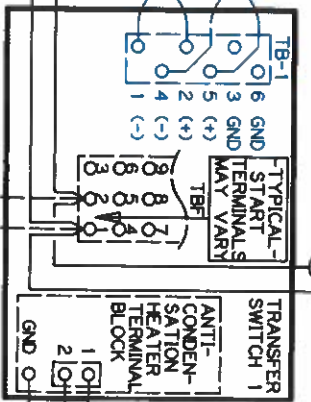
18-20 GA. START SIGNAL

18-20 GA. FOR CHARGER WITH ALARM BOARD

18-20 GA. SENSING WIRES, RED AND BLACK (USED WHEN CHARGING WIRES ARE LONGER THAN 15 FT.)

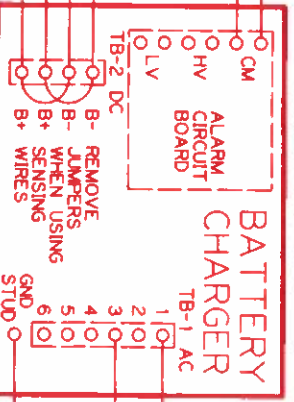
10 GA. CHARGING WIRES, RED AND BLACK

ADDITIONAL TRANSFER SWITCH(S)



SEE 'A' ABOVE MOUNT CHARGER INSIDE BUILDING IF POSSIBLE

BATTERY CHARGER



CIRCUIT FOR BATTERY CHARGER 120VAC 20A

SEE LABEL ON BLOCK HEATER HOUSING FOR CORRECT VOLTAGE

OUTLET FOR CONVENIENCE 120VAC 20A

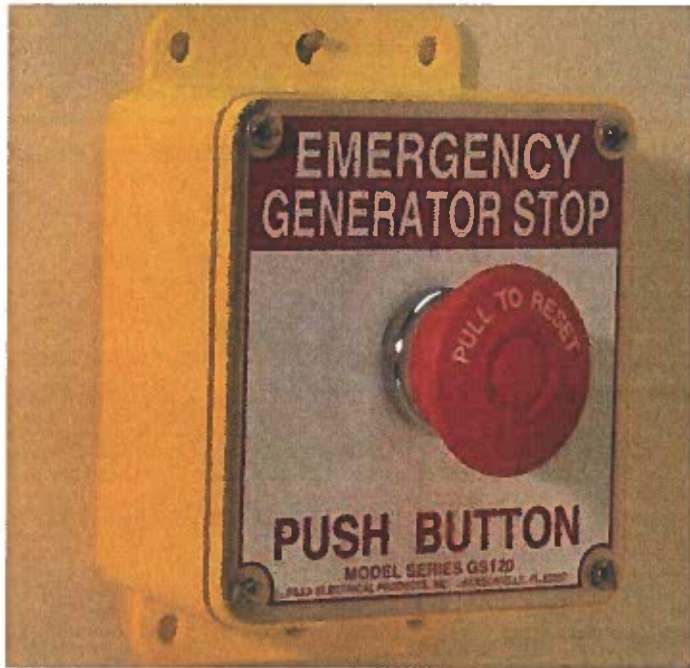
BATTERY OR BATTERY TERMINALS ON STARTER

10 GA. CHARGING WIRES, RED AND BLACK

BATTERY CHARGER

CIRCUIT FOR BATTERY CHARGER 120VAC 20A





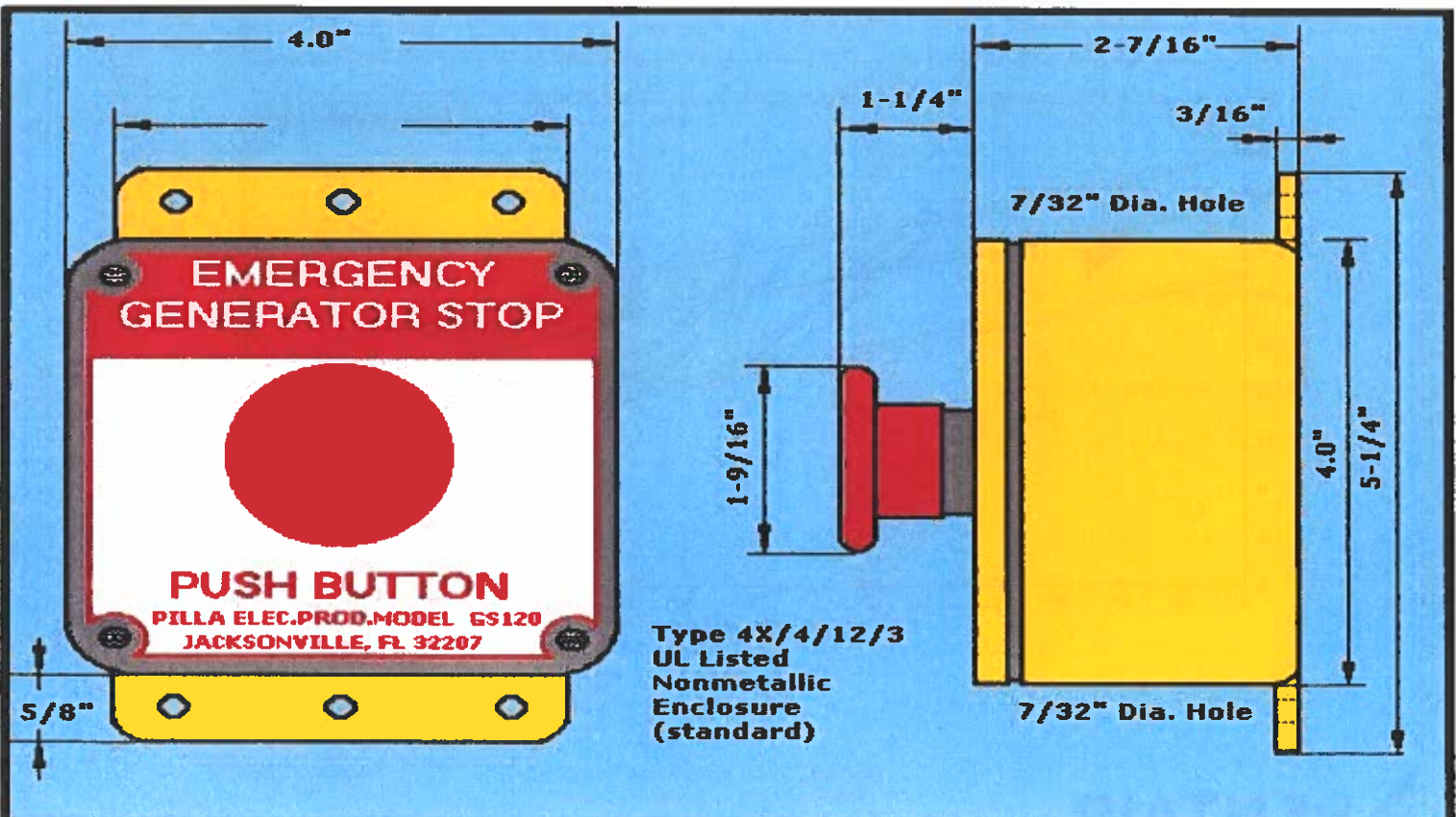
**EMERGENCY GENERATOR STOP  
PUSH BUTTON  
PILLA MODEL SERIES GS120**

**FEATURES**

- Large heavy duty mushroom operator, maintained "Pull to Reset" (standard)
- Maintained "Turn to Reset" mushroom model also available: Add model suffix TW
- Momentary mushroom model also available: Add suffix MO
- Nonmetallic NEMA 4X enclosure with stainless steel machine screws (standard)
- Bold, silk screen legends on white enamel aluminium face plate (standard)
- Economy NEMA 1 metal backbox models also available for both surface and flush mount applications
- Standard depth 4 x 4x 2.375 inch nonmetallic enclosure holds two contact blocks
- Extra depth 4 x 4x 4.5 inch nonmetallic enclosure holds six contact blocks: Add suffix XD
- Super depth 4 x 4x 6.5 inch nonmetallic enclosure holds ten contacts blocks: Add suffix SD
- Metal backbox models(surface and flush mount)use 4 x 4x 3 inch enclosure holding four contacts blocks
- All-metal models meet NYC, Chicago and other specific requirements: Add suffix MT1, MT4 or MS as needed
- Illuminated models include 120V lamp (standard, specify if other voltage desired) in mushroom or round push button (Note 2 above): Add model suffix IL
- Restricted operator access available: See options available above for model suffix RP/RR/CP/CR
- Restricted operator access available: See Series PIL accessory PILCHCOV1
- Key Release mushroom model restricts reset/release access only: Add suffix KR
- Contact blocks rated 10 AMP continuous up to 600 volts\*



**CLEAR  
PROTECTIVE  
COVER  
PILCLHCOV1**



Item number	: 001	Size	: Myers - 3RMW
Service	:	Stages	: 1
Quantity	: 1	Based on curve number	: SUB_S_V_AH_00013_B_4 Rev
Quote number	: 885989		: 2012-03-23
		Date last saved	: 06 Jul 2020 1:55 PM

**Operating Conditions**

Flow, rated	: 50.00 USgpm
Differential head / pressure, rated (requested)	: 29.00 ft
Differential head / pressure, rated (actual)	: 29.53 ft
Suction pressure, rated / max	: 0.00 / 0.00 psi.g
NPSH available, rated	: Ample
Site Supply Frequency	: 60 Hz

**Liquid**

Liquid type	: Water
Additional liquid description	:
Solids diameter, max	: 0.00 in
Solids diameter limit	: 2.50 in
Solids concentration, by volume	: 0.00 %
Temperature, max	: 68.00 deg F
Fluid density, rated / max	: 1.000 / 1.000 SG
Viscosity, rated	: 1.00 cP
Vapor pressure, rated	: 0.34 psi.a

**Performance**

Speed criteria	: Synchronous
Speed, rated	: 1750 rpm
Impeller diameter, rated	: 5.63 in
Impeller diameter, maximum	: 6.00 in
Impeller diameter, minimum	: 5.00 in
Efficiency	: 28.35 %
NPSH required / margin required	: - / 0.00 ft
nq (imp. eye flow) / S (imp. eye flow)	: 50 / - Metric units
Minimum Continuous Stable Flow	: -
Head, maximum, rated diameter	: 31.74 ft
Head rise to shutoff	: 9.44 %
Flow, best eff. point	: 221.5 USgpm
Flow ratio, rated / BEP	: 22.57 %
Diameter ratio (rated / max)	: 93.75 %
Head ratio (rated dia / max dia)	: 88.85 %
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
Selection status	: Acceptable

**Material**

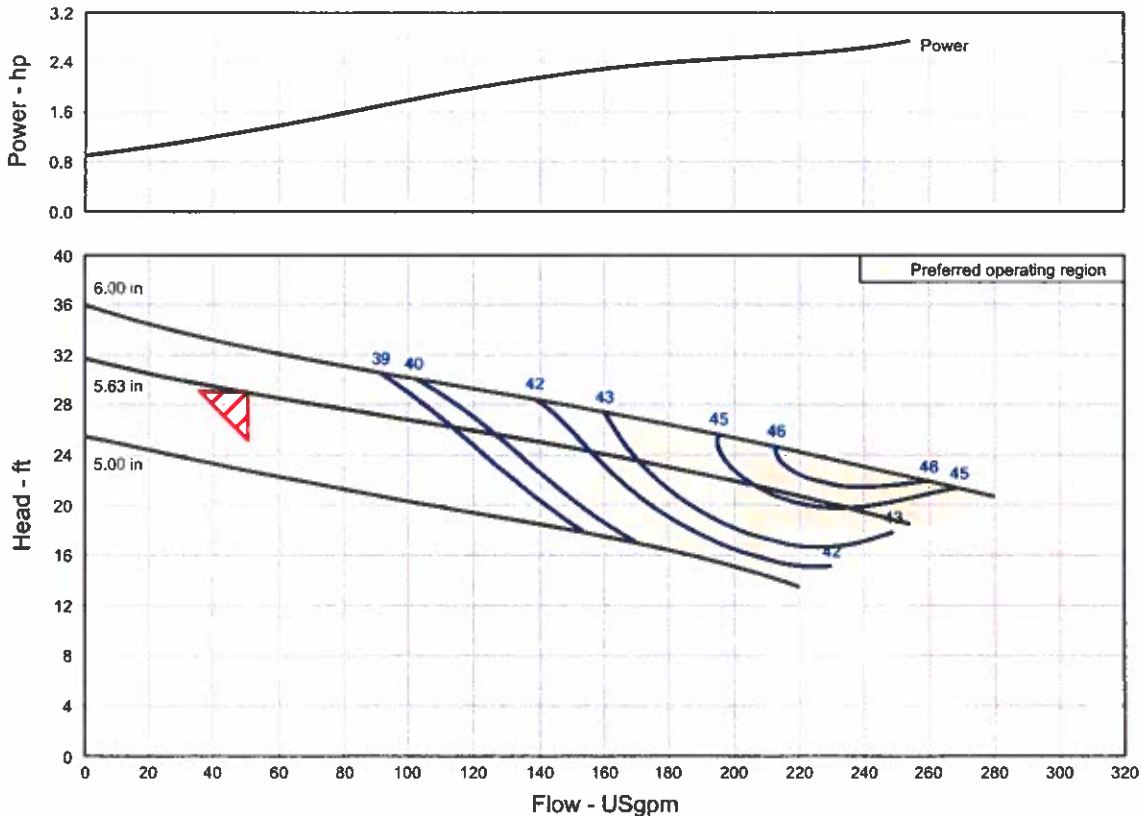
Material selected	: Standard
-------------------	------------

**Pressure Data**

Maximum working pressure	: 13.74 psi.g
Maximum allowable working pressure	: N/A
Maximum allowable suction pressure	: N/A
Hydrostatic test pressure	: N/A

**Driver & Power Data (@Max density)**

Driver sizing specification	: Rated power
Margin over specification	: 0.00 %
Service factor	: 1.00
Power, hydraulic	: 0.37 hp
Power, rated	: 1.29 hp
Power, maximum, rated diameter	: 2.75 hp
Minimum recommended motor rating	: 1.50 hp / 1.12 kW





**MYERS<sup>®</sup>**  
**3RMW SERIES**  
**VORTEX WASTEWATER PUMPS**

# TECHNICAL INFORMATION



## THE RIGHT CHOICE

Myers 3RMW submersible wastewater vortex pumps are the right choice when difficult to pump fibrous or stringy solids are to be expected. The 3RMW series provides smooth, vibration-free operation over the entire performance curve.

Myers offers a complete line of wastewater pumps, lift-out rail assemblies, controls and accessories to meet your needs. Call your Myers distributor or the Myers sales office at 419-289-1144 for more details.

## PASSES STRINGY TRASH, FIBROUS WASTES, SLURRIES, AND OTHER DIFFICULT TO PUMP SOLIDS THAT STANDARD ENCLOSED OR SEMI-OPEN IMPELLERS CANNOT.

- Recessed impeller design has completely open passage in volute.
- Operates without vibration or cavitation over entire performance curve. Operates near shutoff without harming pump.

## DURABLE MOTOR WILL DELIVER MANY YEARS OF RELIABLE SERVICE.

- Recessed impeller greatly increases bearing life by reducing radial load.
- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Heat sensor thermostats embedded in windings protect motor from overheat conditions.
- Seal leak probes warn of moisture entry, helps prevent costly motor burnout (dual seal only).

### Product Capabilities

Capacities To	230 gpm	17.67 tps
Heads To	51 ft.	15.55 m
Solids Handling		
1750	2 1/2 in.	63.5 mm
3450	2 in.	50.5 mm
Liquids Handling	raw sewage, effluent, rain water	
Intermittent Liquid Temp.	up to 140°F	up to 60°C
Winding Insulation Temp. (Class B)	260°F	130°C
Motor Electrical Data (single phase are also type, three phase need Myers control panel)	1750 rpm 1 1/2 - 3 HP 200/230 volt, 1Ø, 50 Hz, 1750 rpm	3450 rpm 1 - 3 HP 200/230/450/575 volt, 3Ø, 60 Hz, 3Ø, 50 Hz
Third Party Approvals	CSA	
Acceptable pH Range	5 - 9	
Specific Gravity	.9 - 1.1	
Viscosity	28 - 35 SSU	
Discharge, Horizontal	3" flanged	
Minimum Sump Dia. (Duplex)	48 in.	1.2 m

NOTE: Consult factory for applications outside these recommendations.

### Construction Materials

Motor Housing, Seat Housing, Volute Case	cast iron, Class 30, ASTM A43
Recessed Impeller	ductile iron, Class 65, ASTM A536
Power and Control Cords	SGOW / SJ00W
Mechanical Seals Standard Optional	single or dual, type 21 carbon and ceramic tungsten carbide
Pump Motor Shaft	#15 SST
Fasteners	300 series SST

# ADVANTAGES BY DESIGN

## POWER & CONTROL CORDS

Jacket sealed with compression fittings. Individual wires potted with epoxy to prevent wicking in case of cord damage.

## BALL BEARINGS

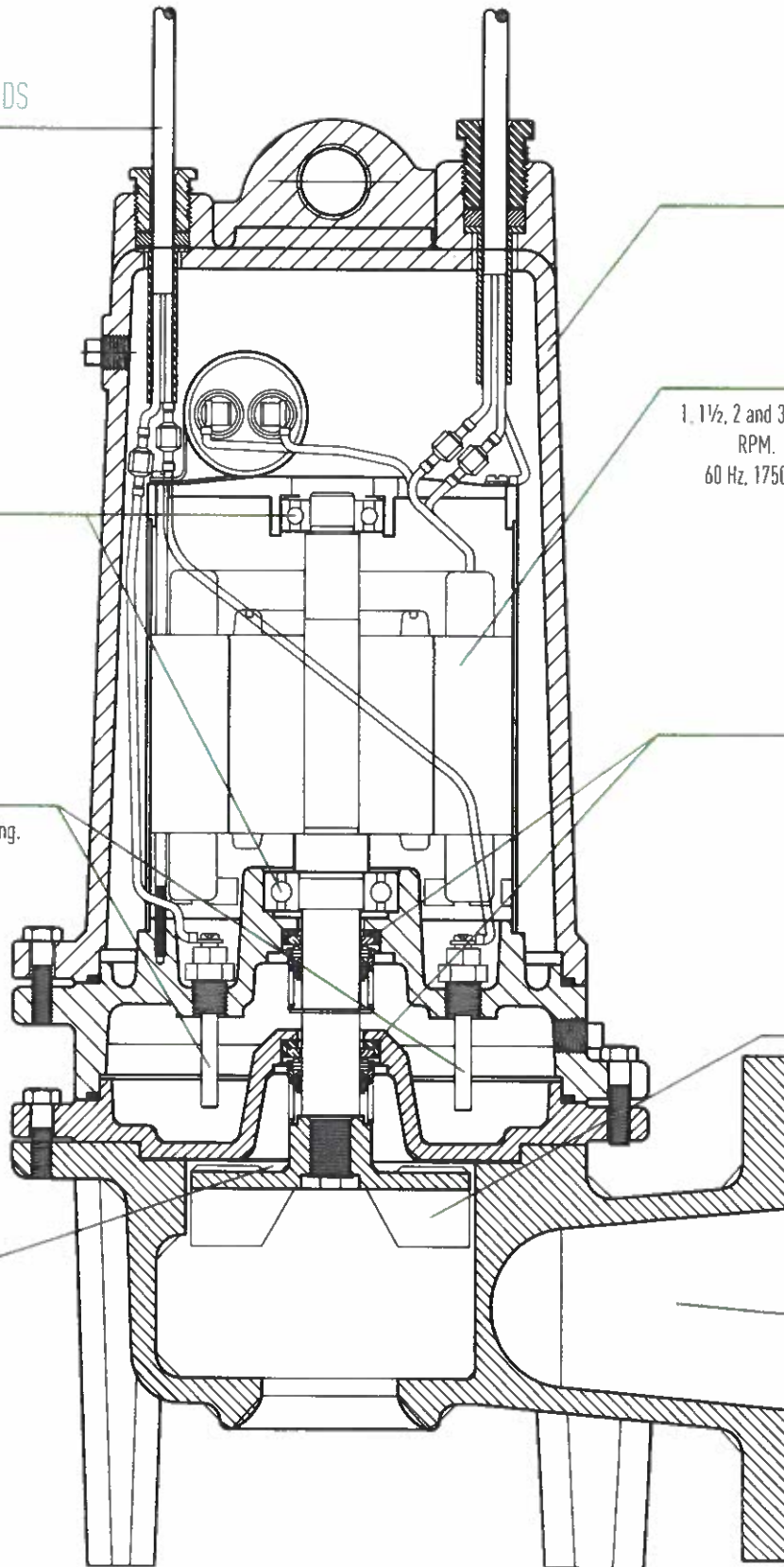
Upper and lower ball bearings support rotor and take radial and thrust loads.

## SEAL LEAK PROBES

Detect water leakage in seal housing. Activates warning light. (Dual seal models only)

## PUMP OUT VANES

Help keep trash from seal, reduces pressure at seal faces.



(Dual seal model shown)

## MOTOR HOUSING

Cast iron for efficient heat transfer and corrosion resistance.

## MOTOR

1, 1½, 2 and 3 HP single or three phase. 60 Hz, 3450 RPM. 1½, 2 and 3 HP single or three phase. 60 Hz, 1750 RPM. Single phase PSC motors have built-in winding overload protection, oil-cooled and lubricated.

## SHAFT SEALS

Carbon and ceramic faces. Optional tungsten carbide.

## RECESSED OPEN VANE IMPELLER

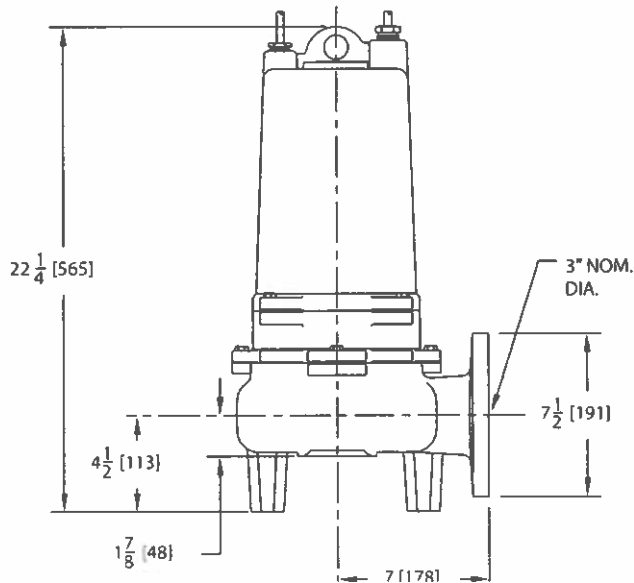
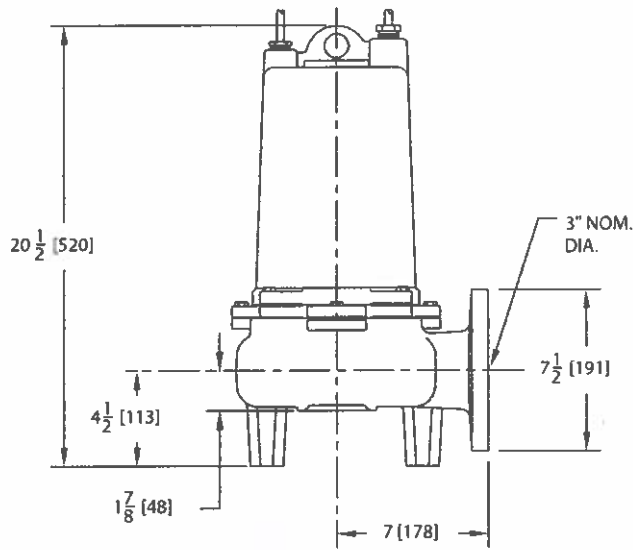
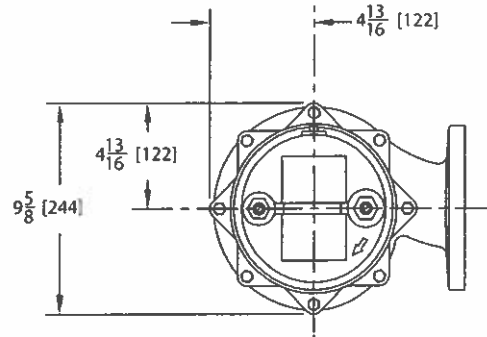
Ductile iron construction.

## HIGH EFFICIENT CAST IRON VOLUTE

Corrosion resistant. 3" Flanged horizontal discharge with legs.

# PUMP DIMENSIONS

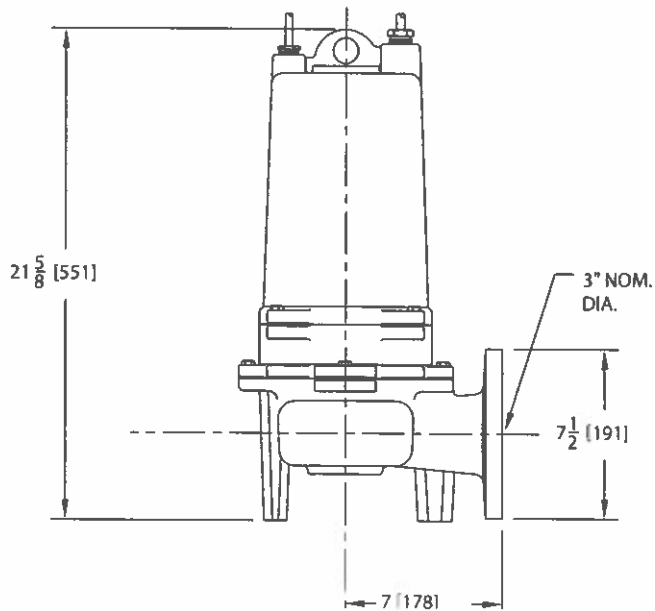
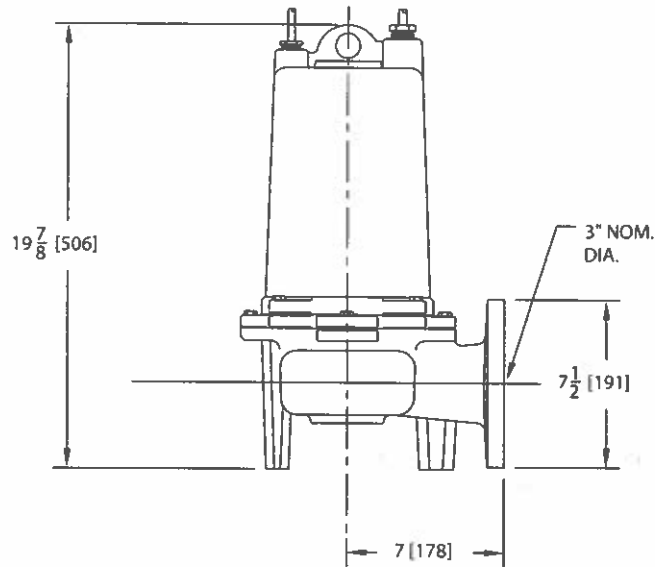
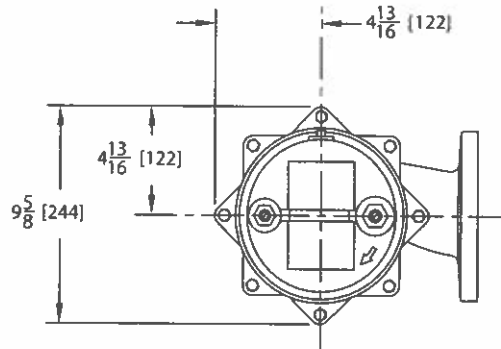
1750 RPM



Dimensions in inches  
[ ] Dimensions in mm

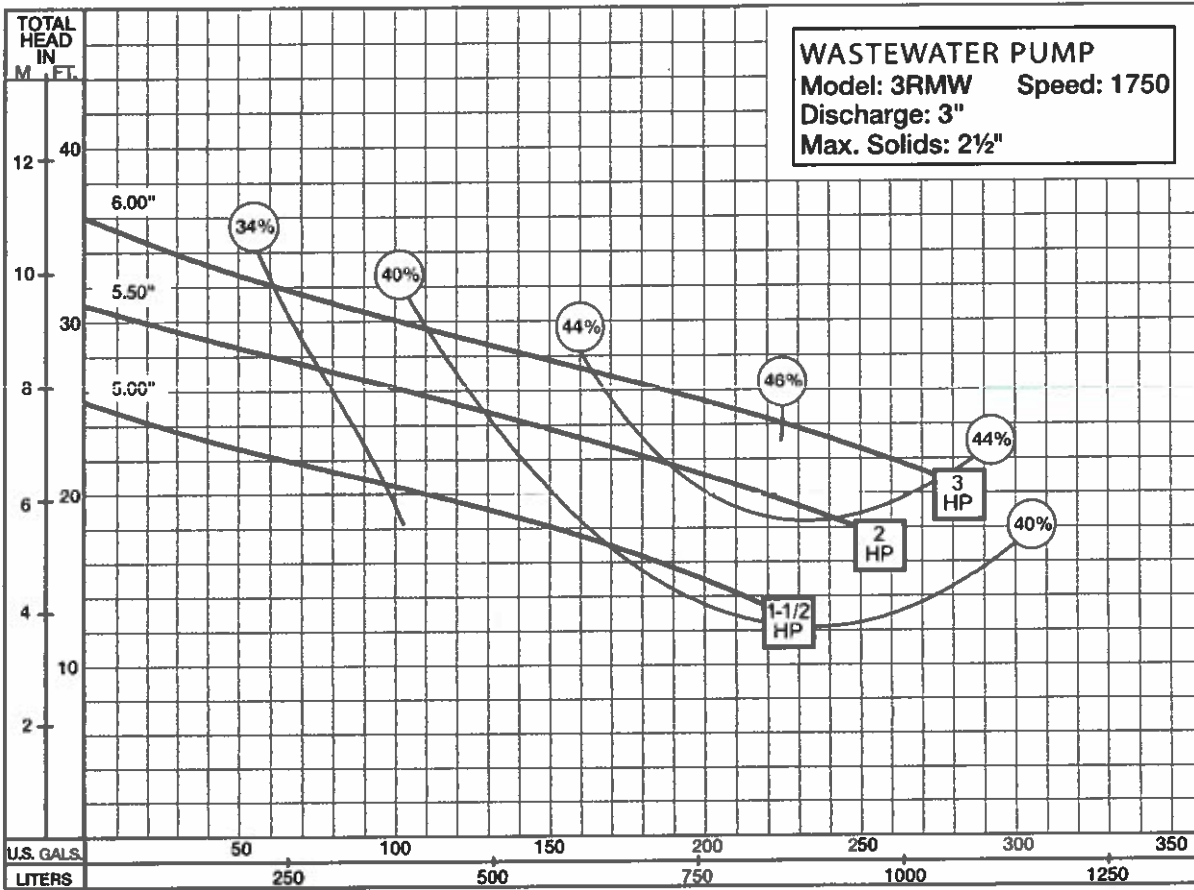
# PUMP DIMENSIONS

3450 RPM



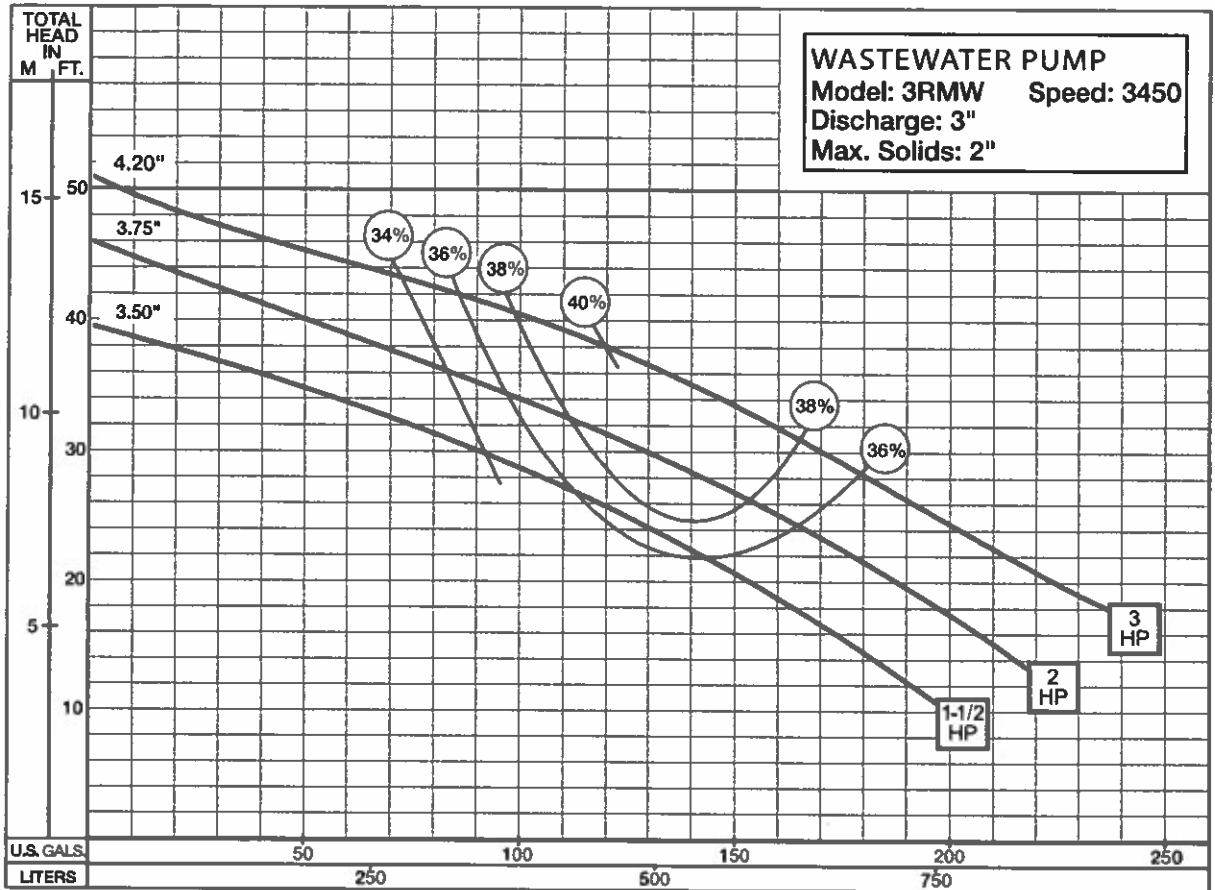
Dimensions in inches  
 [ ] Dimensions in mm

# 1750 RPM PERFORMANCE CURVE



Available Models		Motor Electrical Data								
Model	HP	PH	Volts	Hz	Start Amps	Run Amps	Run kW	Start kVA	NEC Code Letter	
3RMW15M4-01	1.5	1	208	60	39.9	15.5	2.7	8.3	A	
3RMW15M4-21	1.5	1	230	60	33.4	15	2.3	7.7	A	
3RMW15M4-03	1.5	3	208	60	45	11	2.2	16.2	F	
3RMW15M4-23	1.5	3	230	60	48	10	2.2	19.1	H	
3RMW15M4-43	1.5	3	460	60	24	5	2.2	19.1	H	
3RMW15M4-53	1.5	3	575	60	19	4	2.2	18.9	H	
3RMW20M4-01	2	1	208	60	39.9	17.7	3.4	8.3	A	
3RMW20M4-21	2	1	230	60	33.4	16	3	7.7	A	
3RMW20M4-03	2	3	208	60	45	13	2.9	16.2	F	
3RMW20M4-23	2	3	230	60	48	12	2.9	19.1	H	
3RMW20M4-43	2	3	460	60	24	6	2.9	19.1	H	
3RMW20M4-53	2	3	575	60	19	4.8	2.9	18.9	H	
3RMW30M4-21	3	1	230	60	33.4	20	3.8	7.7	A	
3RMW30M4-03	3	3	208	60	45	15	3.5	16.2	F	
3RMW30M4-23	3	3	230	60	48	13.5	3.5	19.1	H	
3RMW30M4-43	3	3	460	60	24	6.8	3.5	19.1	H	
3RMW30M4-53	3	3	575	60	19	5.5	3.5	18.9	H	

# 3450 RPM PERFORMANCE CURVE

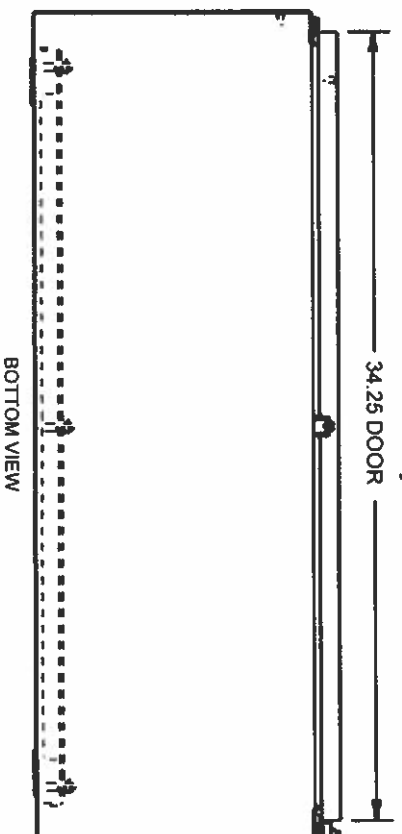
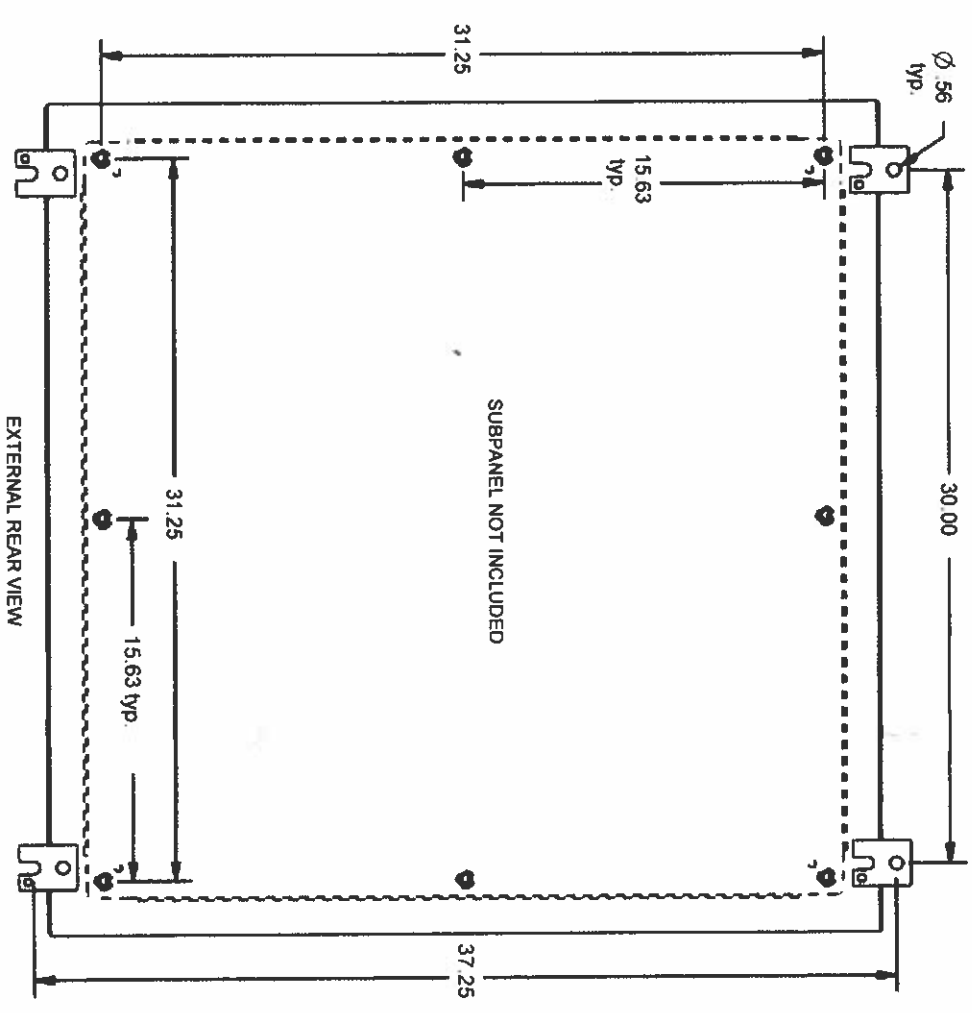
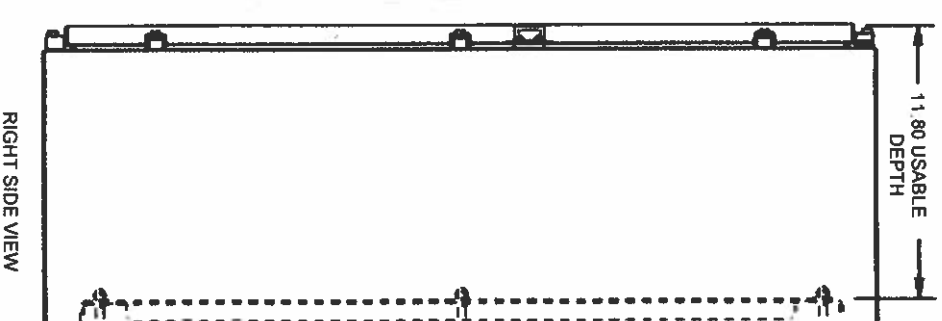
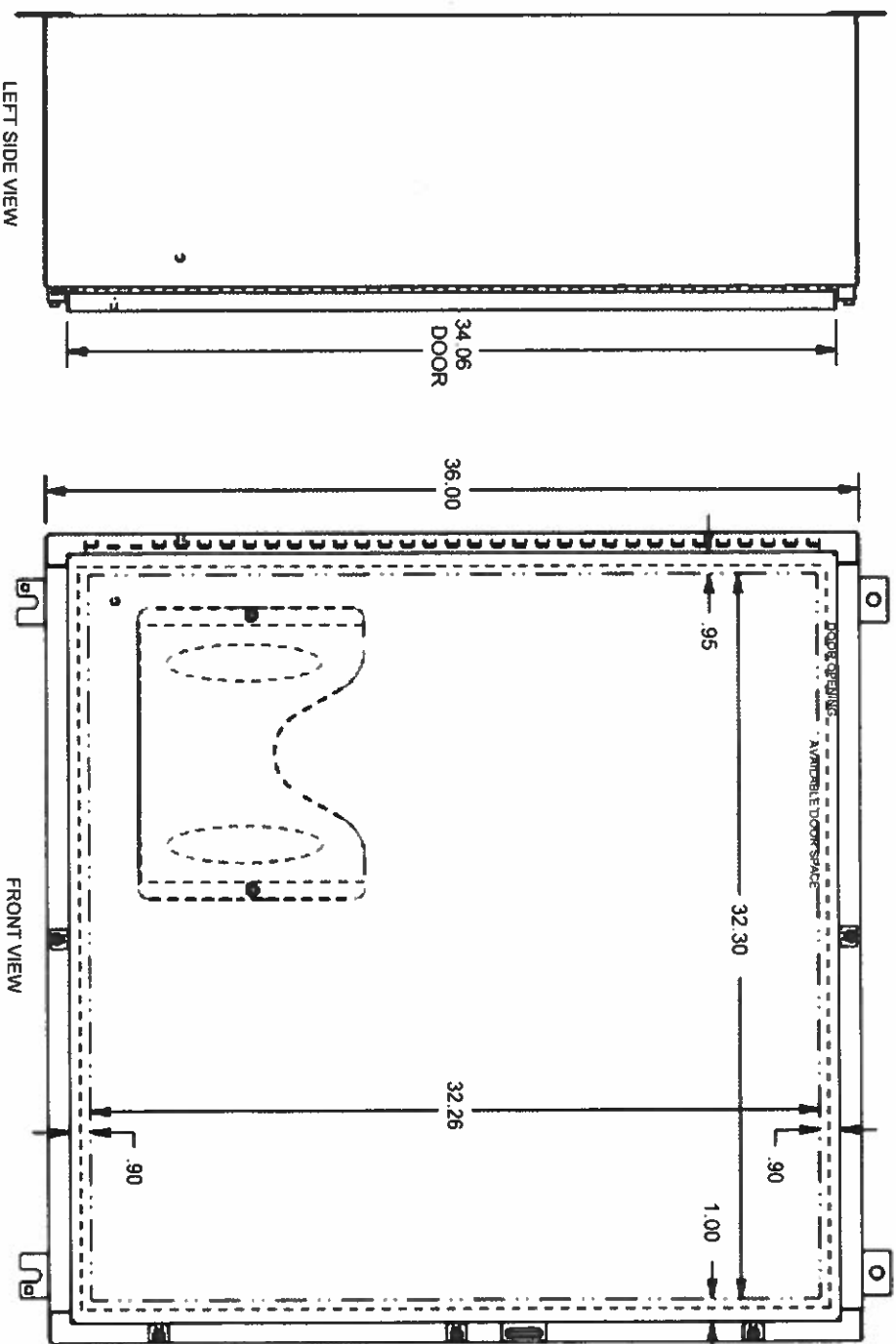
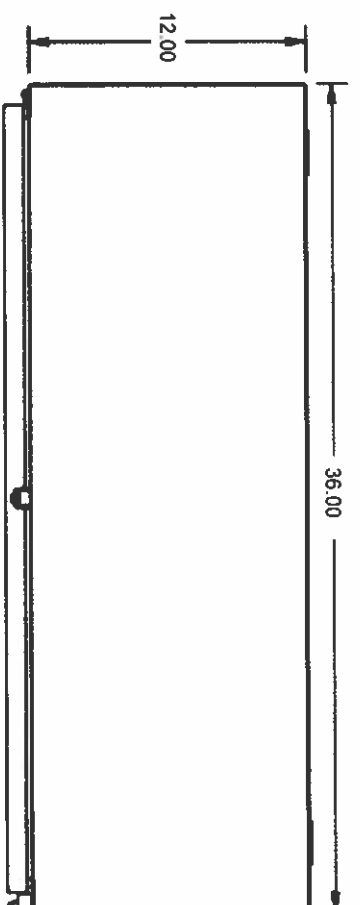


Available Models		Motor Electrical Data								
Model	HP	Ph	Volts	Hz	Start Amps	Run Amps	Run kW	Start kVA	NEC Code Letter	
3RMW15M2-01	1.5	1	208	60	39.9	14.3	3.3	8.3	F	
3RMW15M2-21	1.5	1	230	60	33.4	12.8	3	7.7	F	
3RMW15M2-03	1.5	3	208	60	30	8.8	2.7	10.8	J	
3RMW15M2-23	1.5	3	230	60	32	8	2.7	12.8	K	
3RMW15M2-43	1.5	3	460	60	16	4	2.7	12.8	K	
3RMW15M2-53	1.5	3	575	60	13	3.2	2.7	13.0	K	
3RMW20M2-01	2	1	208	60	63	17.7	3.5	13.1	D	
3RMW20M2-21	2	1	230	50	63	16	3.5	14.5	E	
3RMW20M2-03	2	3	208	60	53	13	3.4	19.1	H	
3RMW20M2-23	2	3	230	60	50	12	3.4	19.9	H	
3RMW20M2-43	2	3	460	60	25	6	3.4	19.9	H	
3RMW20M2-53	2	3	575	60	20	4.8	3.4	19.9	H	
3RMW30M2-21	3	1	230	50	63	19	4.3	14.5	E	
3RMW30M2-03	3	1	208	60	53	14.7	4.2	19.1	H	
3RMW30M2-23	3	3	230	60	50	13.3	4.2	19.9	H	
3RMW30M2-43	3	3	460	60	25	6.7	4.2	19.9	H	
3RMW30M2-53	3	3	575	60	20	5.2	4.2	19.9	H	

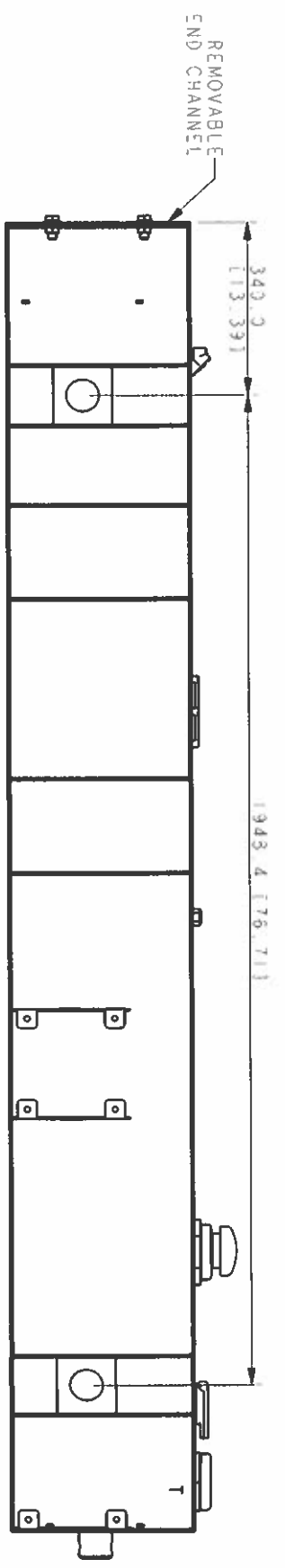
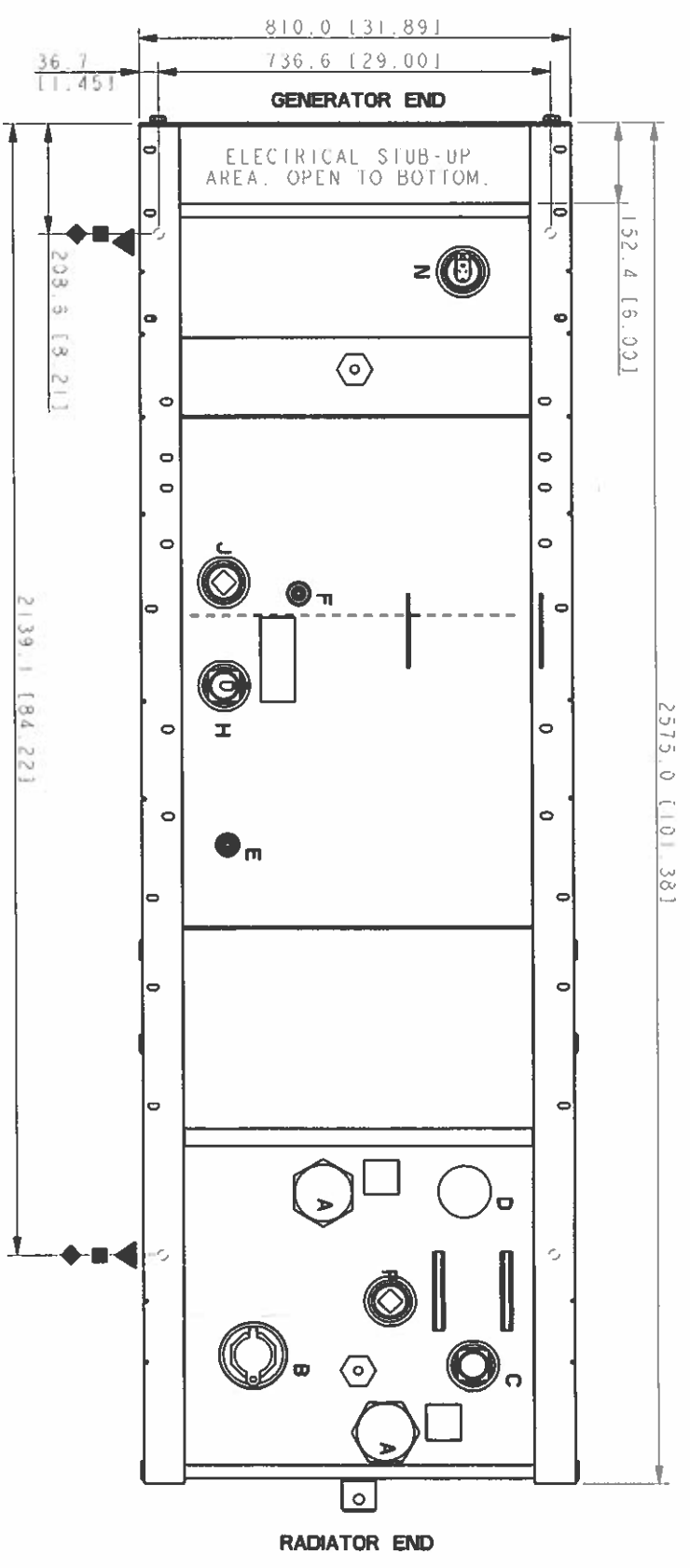


# SAGINAW CONTROL & ENGINEERING

## SCE-36H3612SSLP



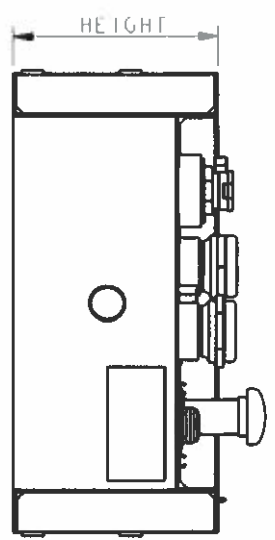
MODEL	CAPACITY		WEIGHT			HEIGHT		EMERGENCY VENT (A) INNER/OUTER
	LITERS	GAL	KG	SS	MM	IN	IN	
10/330kW	330	87	347	785	355.6	14.0	3/3	
10/330kW	476	126	411	936	432.6	19.0	3/3	
10/330kW	638	168	479	1053	609.6	24.0	3/3	
10/330kW	838	221	560	1235	762.0	30.0	3/3	
10/330kW	1057	279	643	1419	914.4	35.0	3/4	



- TANK FITTINGS:**
- A. 4" NPT EMERGENCY VENT FITTING PER VFA 33
  - B. 4" NPT FUEL CAPS (QTY 2)
  - C. 2" NPT FUEL FILL FITTING BUSHED TO 2" NPT WITH LOCKABLE FILL CAP AND 2" RISER
  - D. 2" NPT FUEL LEVEL GAUGE FITTING W/ DIRECT READING MECHANICAL GAUGE
  - E. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
  - F. 1/2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE) WITH CHECK VALVE.
  - G. 1/2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE).
  - H. 2" NPT FUEL LEVEL SENDING UNIT.
  - I. 2" NPT FITTING FOR OPTIONAL SWITCH
  - J. 2" NPT FITTING FOR OPTIONAL SWITCH
  - K. 2" NPT FITTING FOR FUEL IN BASIN SWITCH
  - L. 2" NPT FITTING FOR OPTIONAL SWITCH
  - M. 2" NPT FITTING FOR OPTIONAL SWITCH
  - N. 2" NPT FITTING FOR OPTIONAL SWITCH
  - O. 2" NPT FITTING FOR OPTIONAL SWITCH
  - P. 2" NPT FITTING FOR OPTIONAL SWITCH
  - Q. 2" NPT FITTING FOR OPTIONAL SWITCH
  - R. 2" NPT FITTING FOR OPTIONAL SWITCH
  - S. 2" NPT FITTING FOR OPTIONAL SWITCH
  - T. 2" NPT FITTING FOR OPTIONAL SWITCH

**NOTE:**  
FOR FURTHER TANK DETAIL  
SEE INDIVIDUAL DRAWINGS

- 4X Ø20.0 (0.79) STANDARD MOUNTING
- ◆ 4X Ø20.0 (0.79) 13C MOUNTING
- ▼ 4X Ø22.0 (0.79) BOTTOM SEAW MOUNTING



**STATE TANK**

REV	DATE	BY	DESCRIPTION
A	7-22-15	SEE SHEET 1 (101190881)	NEW DRAWING

DATE	11-11-13
DATE	11-11-13
DATE	11-11-13

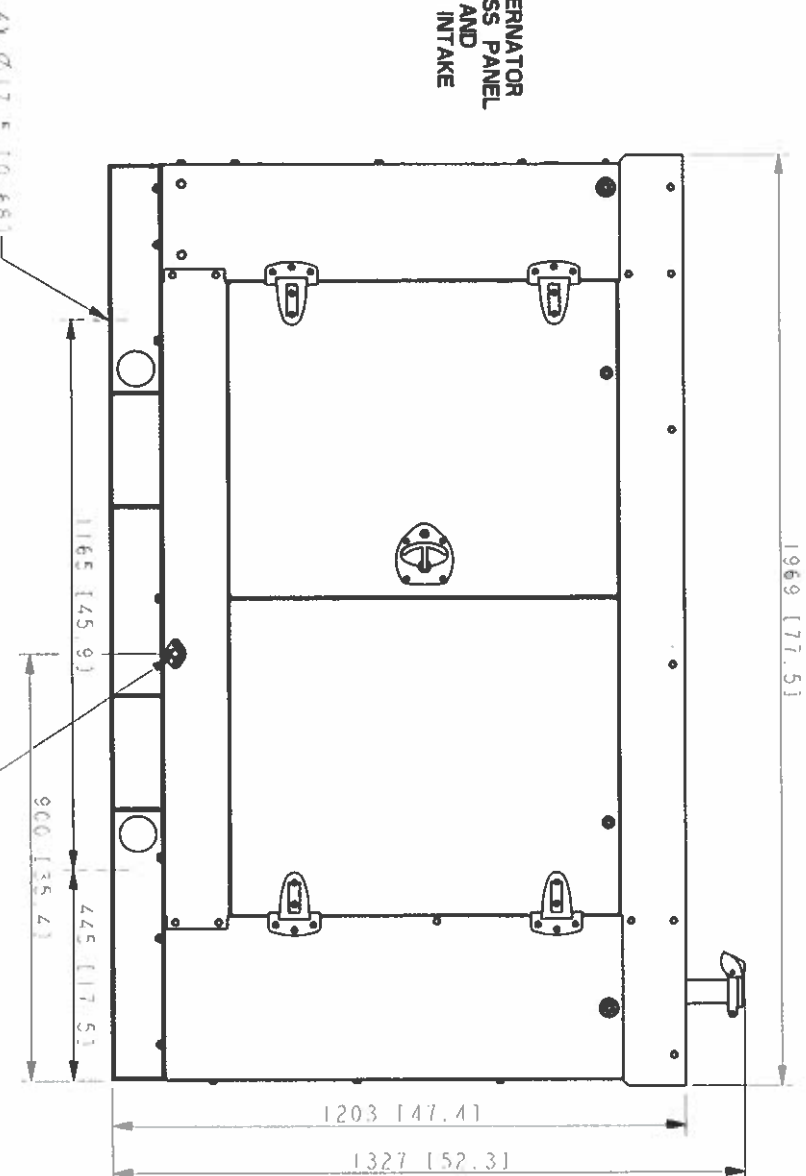
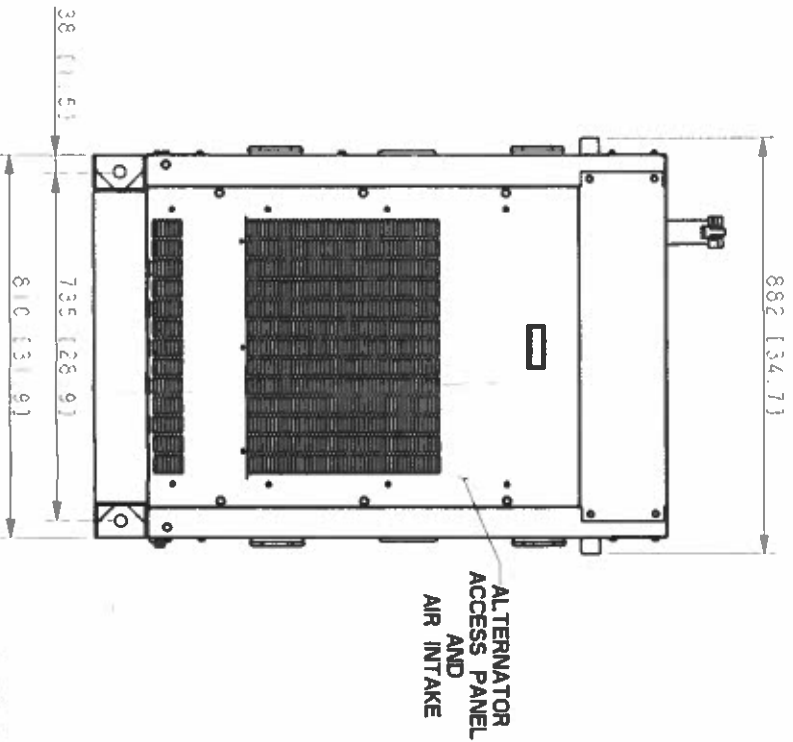
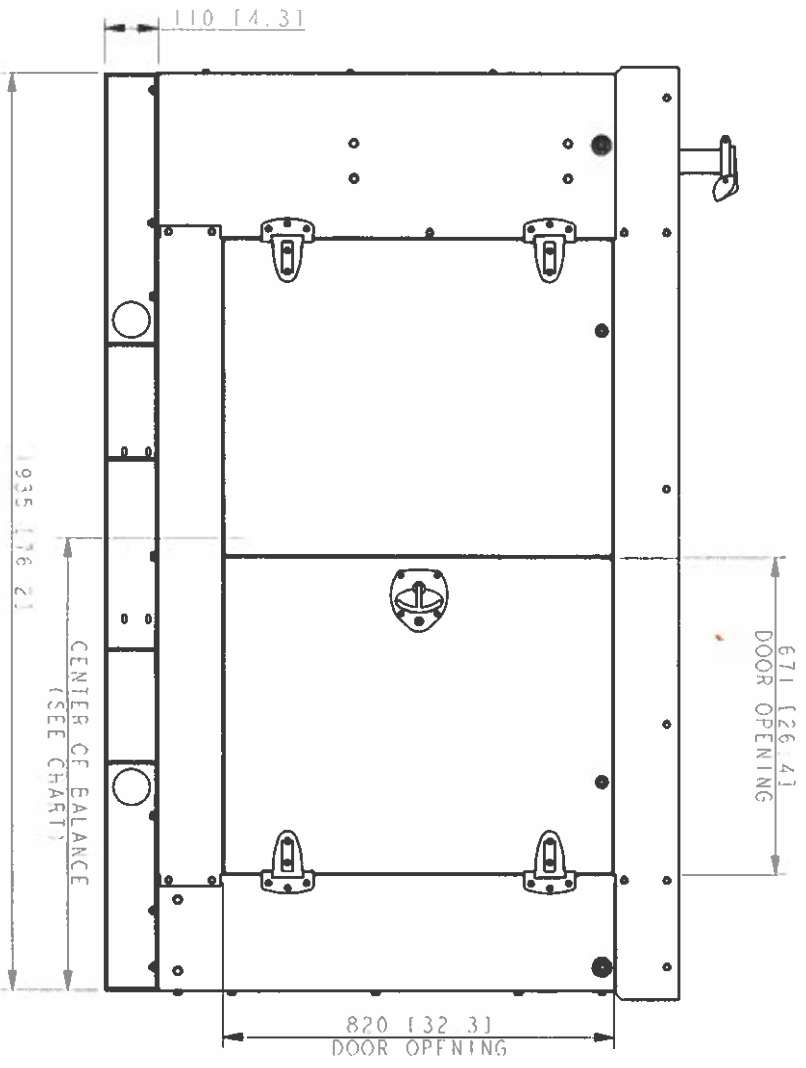
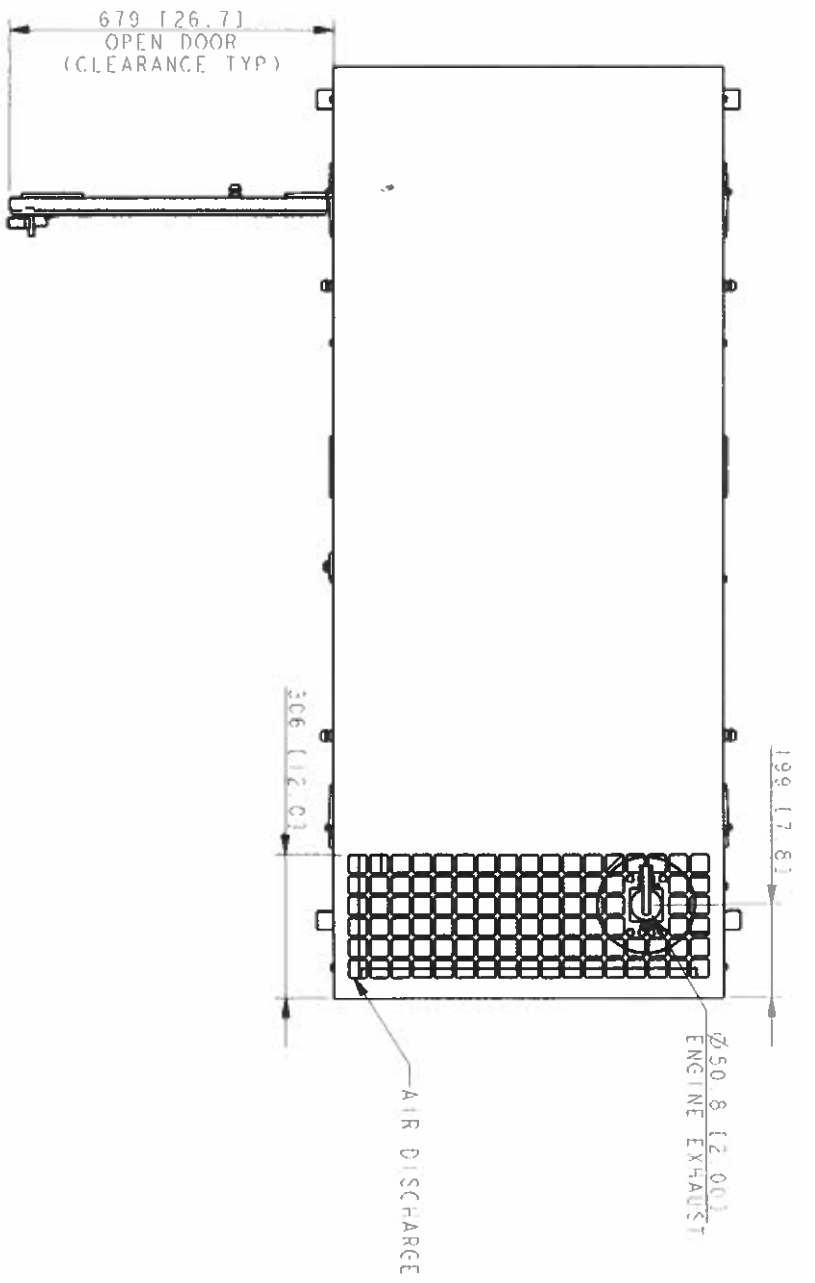
  

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**DIMENSION PRINT**

ADV-8643



MODEL	ENCLOSURE WEIGHT KG (LBS)	ENCLOSURE CENTER OF BALANCE
STEEL WEATHER, 15KW	163 [360]	984 [36.75]
STEEL WEATHER, 20KW	172 [380]	1054 [41.50]
STEEL SOUND, 15KW	108 [238]	984 [36.75]
STEEL SOUND, 20KW	108 [238]	1054 [41.50]
ALUMINUM SOUND, 15KW	108 [238]	984 [36.75]
ALUMINUM SOUND, 20KW	108 [238]	1054 [41.50]

DIMENSIONS IN [ ] ARE ENGLISH EQUIVALENTS

- NOTE:
1. IF TANK IS ORDERED, ENCLOSURE MOUNT DIRECTLY TO TANK.
  2. TANK MAY EXTEND BEYOND ENCLOSURE (DISCHARGE END ONLY).

15 MODEL 60HZ 4D31/4D38  
20 MODEL 60HZ 4D38/4D50  
RECON & 600V ALTERNATORS  
KOHLER DIESEL KDI 1903M & 2504M

REV.	DATE	BY	DESCRIPTION	APP. NO.	DATE
-	8-15-13	NEW DRAINING (ICT16455)			
A	3-2-12	IC E1 (E2) WAS 121.7, 196 B WAS 252.5 (ICT13547)			
E	4-17-12	114.4; UPDATED ENGINE WFC (ICT16254)			
C	10-1-11	110-51 DIM. Q'S C & 12 CC; ADDED ICT177064			

APPROVALS:

DESIGNER: [Signature]

CHECKER: [Signature]

DATE: [Date]

SCALE: [Scale]

PROJECT NO: [Project No]

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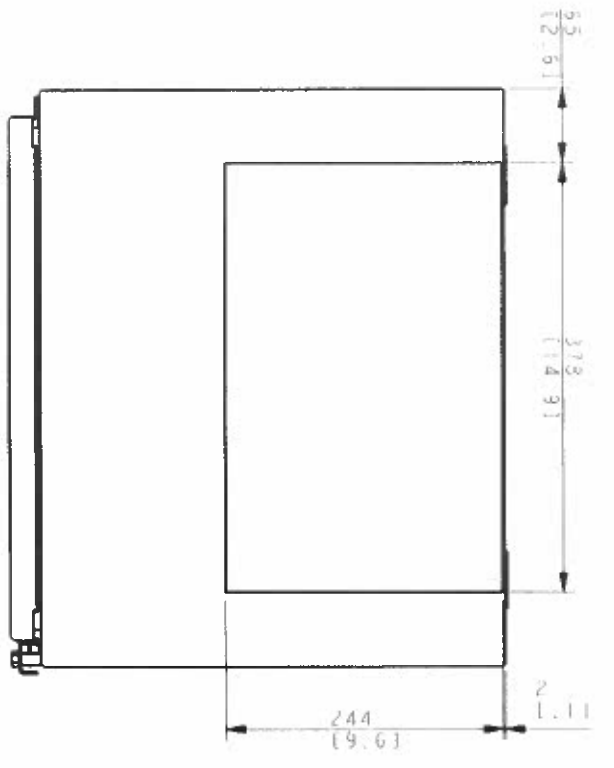
**KOHLER CO.** METRIC PROJE

POWER SYSTEMS

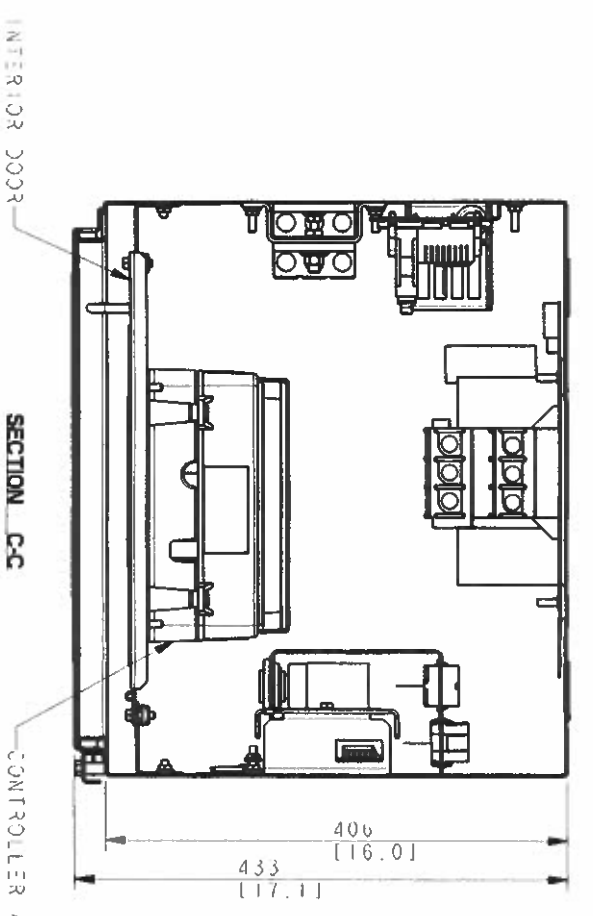
15-20KW KDI ENCL

ADV-8621

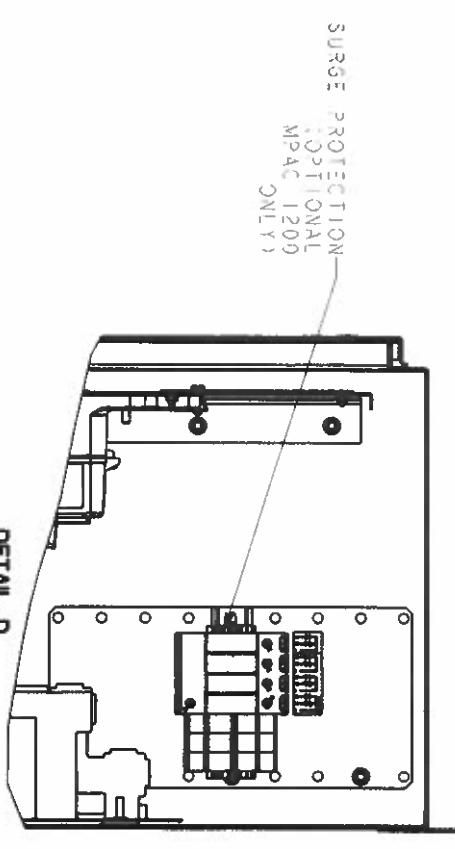
D



RECOMMENDED ENTRANCE AREA  
TOP & BOTTOM

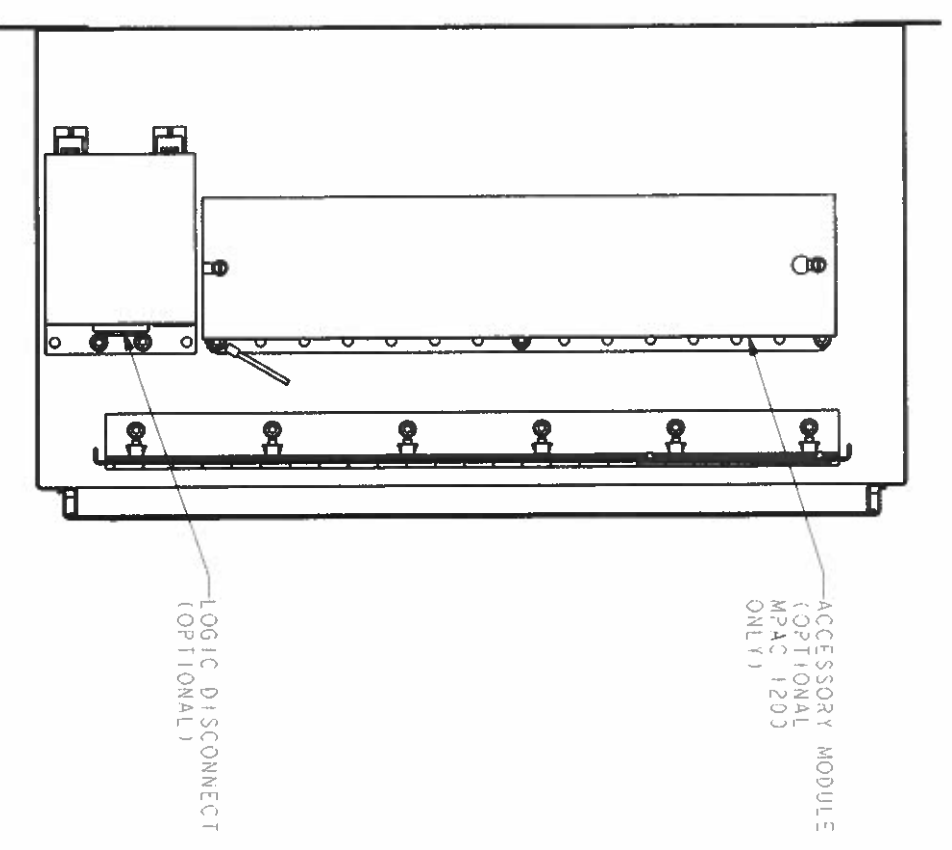


SECTION C-C

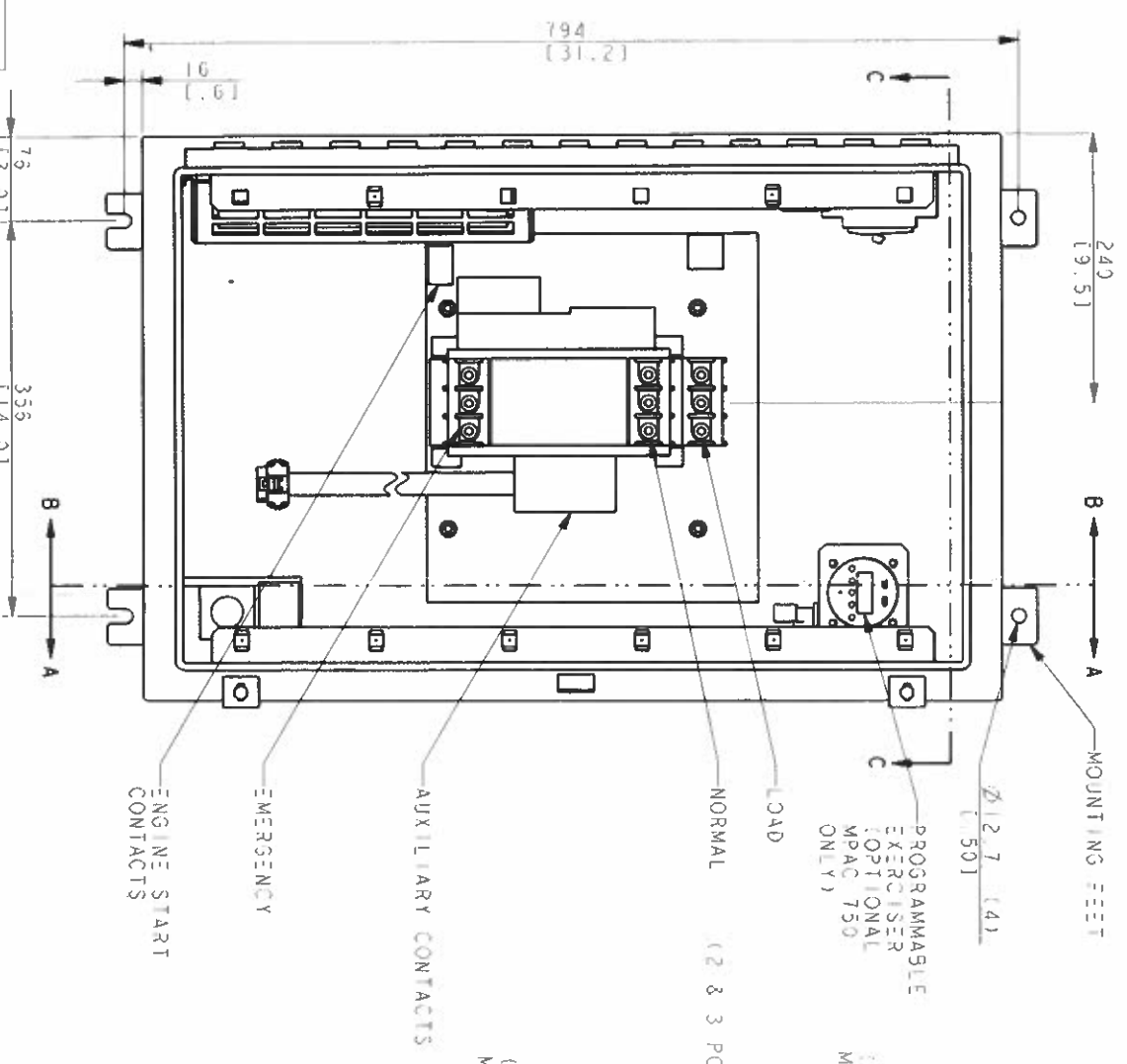


DETAIL D  
OF SECTION B-B

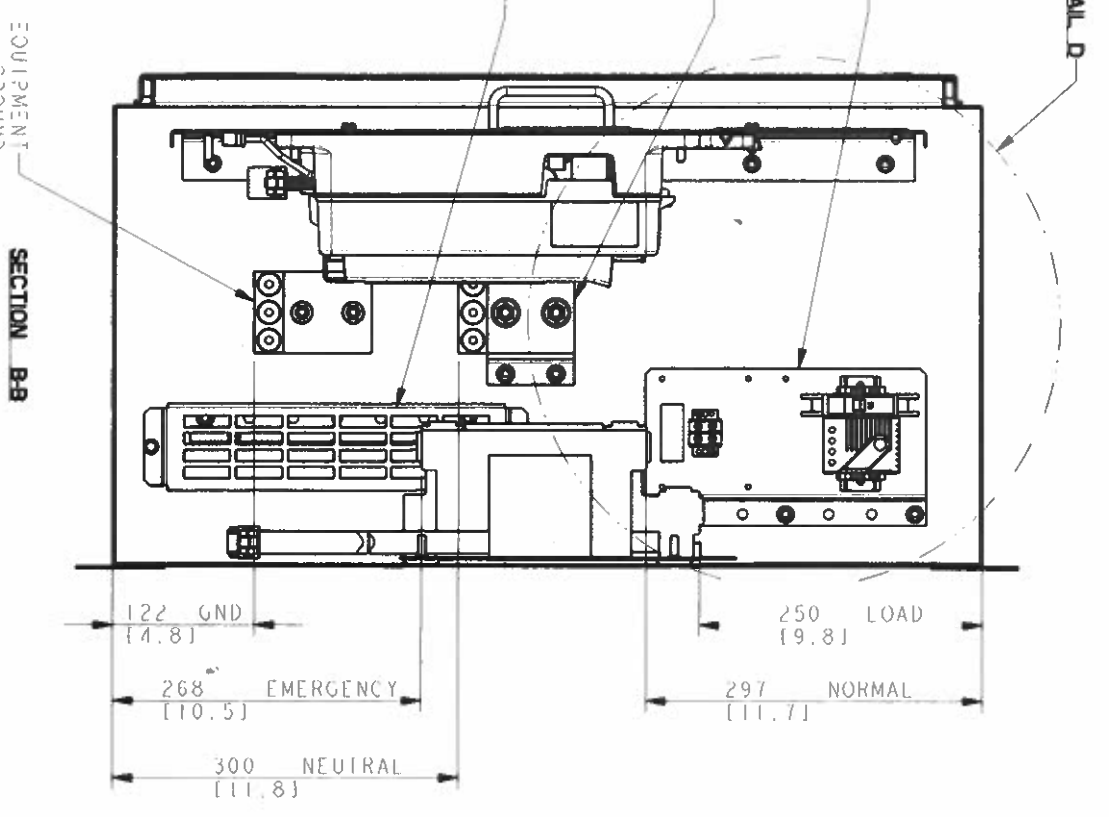
NOTE:  
DUE TO THE SPACE LIMITATIONS,  
SURGE PROTECTION OR HEATER  
MAY BE ORDERED, BUT NOT BOTH.



SECTION A-A



FRONT VIEW  
DOORS NOT SHOWN



SECTION B-B

FOR EXTERNAL POWER CONNECTION  
SCREW TYPE TERMINALS  
RANGE OF AL/CU WIRE SIZES

SWITCH RATING (AMPS)	CONTACTOR (PER PHASE)	NEUTRAL (2 & 3 POLE)	GROUND
40-150	ONE #8 TO 3/3	3 #6 - 3/3	3 #6 - 3/3
200-225	ONE #5 TO 250 KCMIL OR (6) 1/2 - 250 KCMIL	3 #4 - 600 KCMIL OR (6) 1/2 - 250 KCMIL	3 #6 - 3/3

WEIGHTS KG (LBS)	2 POLE	3 POLE	4 POLE
	33 (74)	47 (103)	42 (93)

REV	DATE	REVISION
1	3-22-13	NEW DRAWING (C154441)
2	4-22-14	SEE SHEET 1 (C178131)

31	ISSUE/REVISION SPECIFIED	DATE	BY
31	ISSUE/REVISION SPECIFIED	DATE	BY

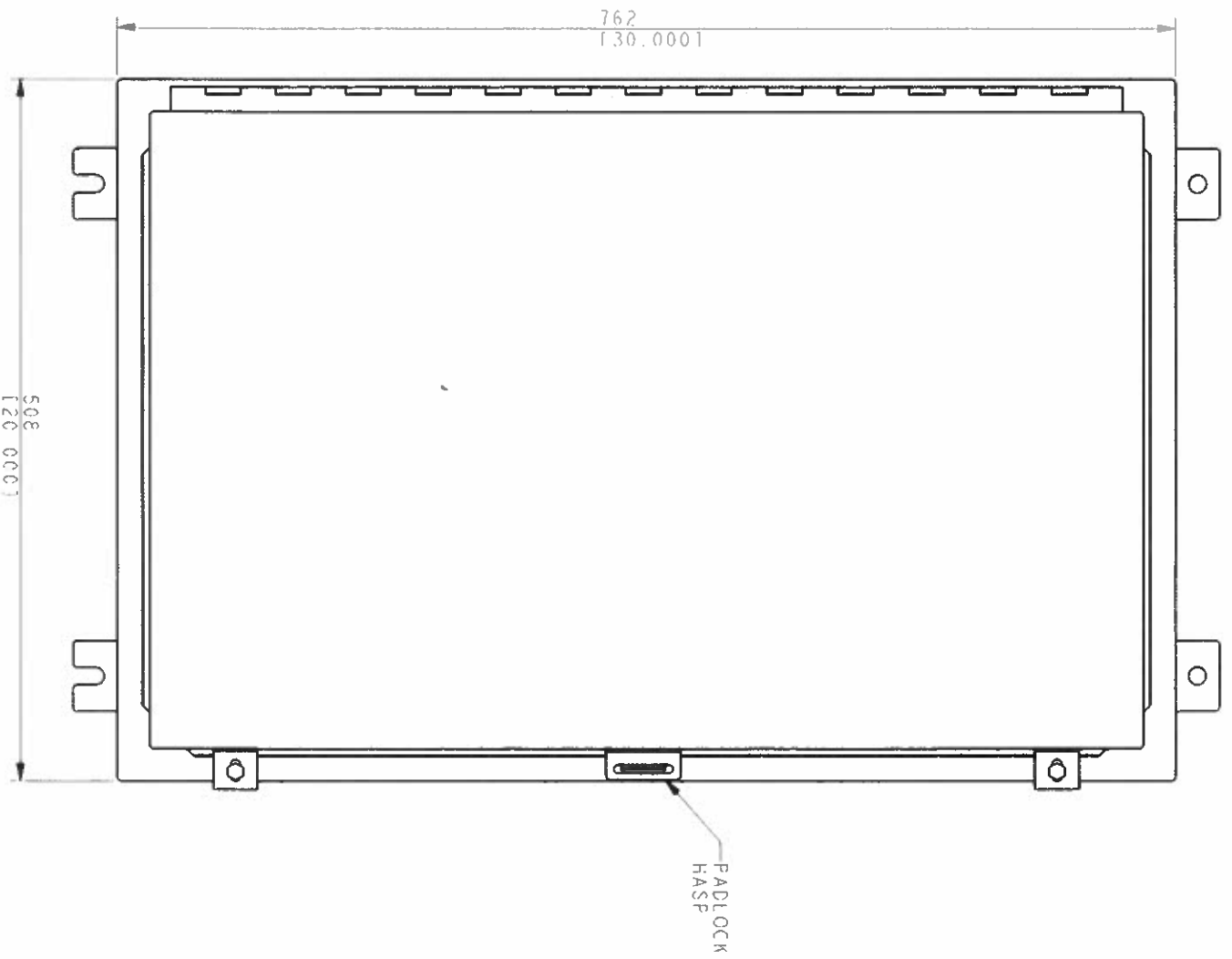
DATE	3/22/13
DATE	3/22/13
DATE	3/22/13

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POWER SYSTEMS, KOHLER, WI 53044 U.S.A.  
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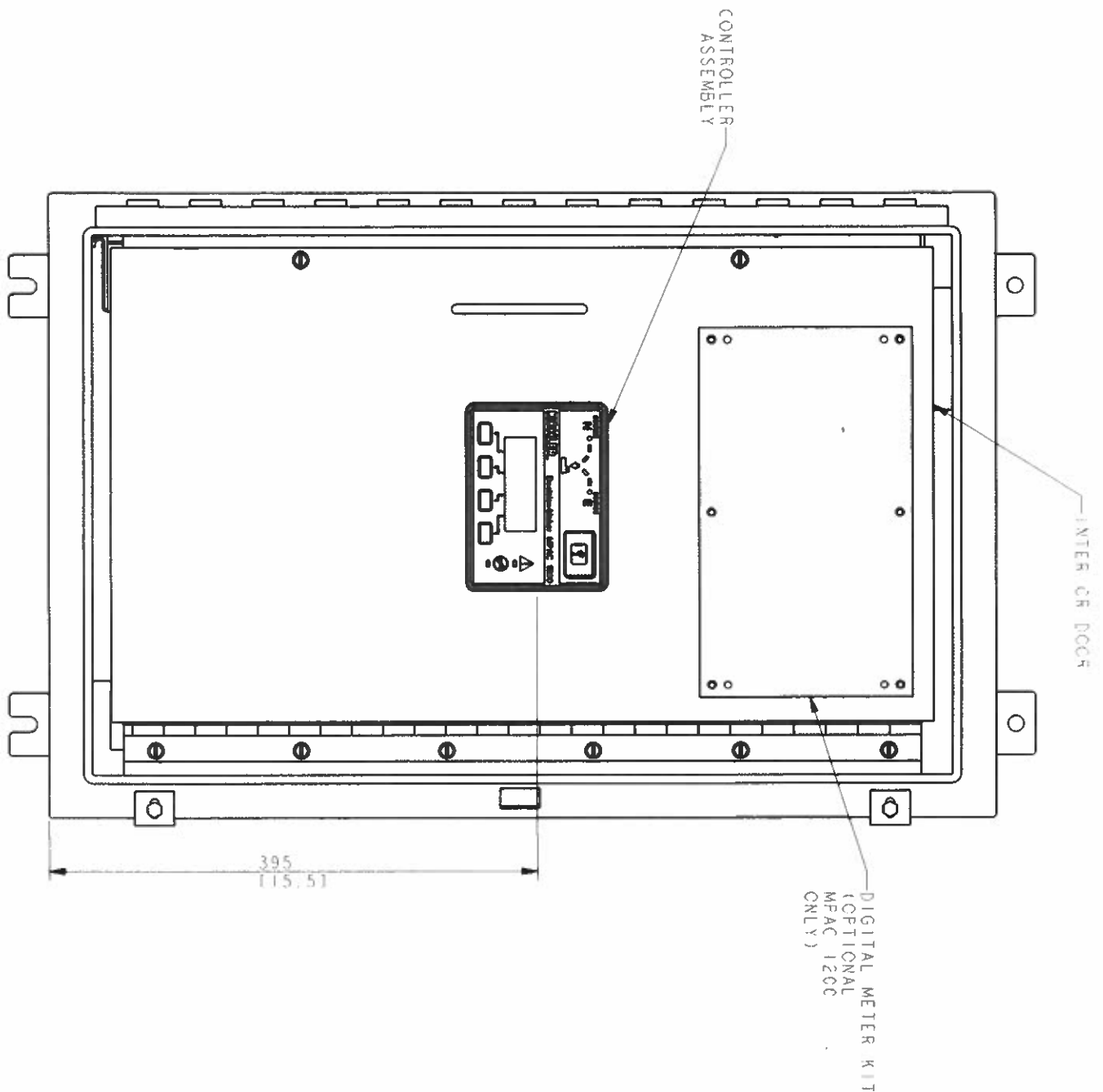
DIMENSION PRINT

ADV-8585

D



508 (20.0) MINIMUM DOOR SWING SPACE REQUIRED



WITH OUTER DOOR REMOVED

**SEISMIC MOUNTING NOTE:**  
FOR SEISMIC CERTIFIED UNITS,  
MOUNT WITH THE FOLLOWING HARDWARE:  
**WALL MOUNTED (STEEL)** SAE GRADE 1 / ASTM A307 BOLTS  
(Ø9.53 (3/8)) Dia.  
**WALL MOUNTED (CONCRETE)** SAE GRADE 1 / ASTM A307 BOLTS  
(Ø9.53 (3/8)) Dia. HILTI HWIK BOLT TZ-CS WITH M.N.  
EMBEDMENT 50.8 (2.00) EDGE DISTANCE OF 101.6 (4.00)  
ON A 101.6 (4.00) THICK 2000 PSI CONCRETE WALL.  
HARDWARE TO COMPLY WITH SPECIFICATIONS  
ON ADV-7456.

- NOTES:
1. DIMENSIONS IN ( ) ARE INCHES.
  2. FINISH:  
NEMA 4 & 12: ANSI 49 GRAY
  3. DOOR CLAMPS VARY WITH NEMA TYPE
  4. REFER TO OPERATOR'S MANUAL PRIOR TO INSTALLATION & OPERATION OF SWITCH
  5. FOR SEISMIC CERTIFIED UNITS, REFER TO ADV-7456 AND INSTALLATION INSTRUCTIONS

STYLE	MECHANISM	TRANSITION	MPAC LOGIC	VOLTS	POLES	NEUTRAL	ENCLOSURE	AMPS	CONNECTION
KSS	SPECIFIC	STANDARD	750, 200	208, 600	2, 3, 4	SOLID, SW	7, 7X, 12	40, 80, 00, 150, 200, 225	STANDARD

REV	DATE	REVISION	BY	CHKD	DATE
1	8-22-13	NEW DRAWING (C154221)	ETW		
2	4-22-14	1A-6: VOLTS: 208-600 WAS 208-480; C1178618; ETW	ETW		

DESIGNED BY	ETW	DATE	8-22-13
CHECKED BY	ETW	DATE	8-22-13
IN CHARGE		DATE	

**KOHLER CO. METRIC PRO-E**

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