CONTRACT DOCUMENTS

GOVERNMENTAL COMLPEX
YOUTH CENTER SITE IMPROVEMENTS

LITTLE TRAVERSE BAY BANDS OF ODAWA INDIANS
7500 ODAWA CIRCLE
HARBOR SPRINGS, MICHIGAN 49740

AUGUST 2026

PREPARED BY:
WADE TRIM
4241 Old US-27 South
Suite 1
Gaylord, MI 487835

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APPENDIX A

Davis Bacon Wage Determination

Division 00
Procurement and Contracting Requirements

Section 00 0115
List of Drawing Sheets

Part 1 General

1.01 Description

A. The Plans bearing the general title of Governmental Complex Youth Center and dated August 2026 included with and form a part of the Contract Documents for this Project.

1.02 List of Plans

SHEET NUMBER	TITLE
G-001	COVER SHEET
G-002	CONSTRUCTION NOTES AND LEGEND
G-003	CONSTRUCTION DETAILS
C-001	EXISTING CONDITIONS, REMOVALS, AND SESC PLAN
C-002	PROPOSED SITE PLAN
C-003	PROPOSED GRADING PLAN
C-004	PROPOSED SANITARY SITE PLAN, DETAILS, AND NOTES
C-005	PREOPOSED SANITARY DETAILS AND NOTES
C-006	PROPOSED WATER MAIN PLAN AND PROFILE
L-001	PROPOSED LANDSACPE PLAN
L-002	PROPOSED LANDSCAPE SCHEDULE AND NOTES
L-003	PROPOSED LANDSCAPE DETAILS

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 00 1113
Advertisement for Bids

GOVERNMENTAL COMPLEX
YOUTH CENTER SITE IMPROVEMENTS
LITTLE TRAVERSE BAY BANDS OF ODAWA INDIANS
7500 ODAWA CIRCLE
HARBOR SPRINGS, MICHIGAN 49740

Sealed Bids will be received by the Little Traverse Bay Bands of Odawa Indians at 7500 Odawa Circle, Harbor Springs, Michigan 49740, until **2:00 PM, Local Time, Friday September 11, 2026**, at which time and place said Bids will be opened and publicly read aloud for the following approximate quantities of work:

> Construction of site improvement for a new Youth Center at the Little Traverse Bay Bands of Odawa Indians Governmental Complex. Construction includes clearing, site grading, aggregate base, HMA paving, concrete sidewalk, ADA ramp, pavement markings, onsite sewage disposal field, septic tanks, sewage dosing pumps, forcemain, 6-inch watermain, blow-off hydrant, 1.5-inch water service, landscaping, and site restoration.

Contract Documents are on file with:

> Little Traverse Bay Bands of Odawa Indians, Planning Department, 7500 Odawa Circle, Harbor Springs, Michigan 49740, contact Amanda Swiss at 231.242.1591
> Wade Trim, Inc., 4241 Old US27 South, Suite 1, Gaylord, Michigan 49735 or
> http://www.wadetrim.com/resources/bid-tab/
> McGraw-Hill Dodge Reports & Builders Exchanges will have Contract Documents; Builders Exchanges are authorized to share the contract documents with other exchanges.

Each Bid package shall be accompanied by a certified check, cashier's check, money order, or bid bond, in the amount of at least five (5) percent of the amount bid, drawn payable to the OWNER, as security for the proper execution of the Agreement.

OWNER reserves the right to accept or reject any or all bids and to waive any informality in any bids should it consider same to be in its best interest.

Bids may not be withdrawn for the period of **sixty (60**) days after date of receiving bids.

All inquiries shall be directed to Paul Repasky, PE, at Phone: 989.619.3454, or Email: prepasky@wadetrim.com.

Wade Trim, Inc.
4241 Old US27 South, Suite 1
Gaylord, Michigan 49735

Little Traverse Bay Bands of Odawa Indians
7500 Odawa Circle
Harbor Springs, Michigan 49740

Section 00 2113
Instructions to Bidders

Part 1 General

1.01 Defined Terms

A. Terms used in these Instructions to Bidders have the meanings assigned to them in the General Conditions.

1. The term "Bidder" means one who submits a Bid directly to OWNER as distinct from a subbidder who submits a Bid to a Bidder.

2. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom OWNER makes an award.

3. The term "OWNER" means Little Traverse Bay Bands of Odawa Indians, being a party of the first part of this Contract.

4. The term “ENGINEER” means Wade Trim, Inc., 4241 Old US 27 South, Suite 1, Gaylord, Michigan 49735, or his duly authorized representative.

1.02 Scope of Work

A. The scope and location of Work are indicated in the Plans.

1.03 Bidders Qualifications

A. No Bid will be considered from any Bidder unless known to be skilled and regularly engaged in work of a character similar to that covered by the Contract Documents. In order to aid the OWNER in determining the responsibility of any Bidder, the Bidder, within 48 hours after being requested in writing by the OWNER to do so, shall furnish evidence, satisfactory to the OWNER, of the Bidder's experience and familiarity with Work of the character specified, and his financial ability to properly prosecute the proposed Work to completion within the specified time. The evidence requested may include, but shall not be limited to, the following:

1. The address and description of the Bidder's plant or permanent place of business.

2. The Bidder's performance records for all Work awarded to or started by him within the past three years.

3. An itemized list of the Bidder's equipment available for use on the proposed Contract.

4. The Bidder's financial statement, including statement of ownership of equipment necessary to be used in executing Work under Contract.

5. Evidence that the Bidder is authorized to do business in the state in which the project is located, in case of a corporation organized under the laws of any other state; and,

6. Such additional information as will satisfy the OWNER that the Bidder is adequately prepared to fulfill the Contract.

1.04 Examination of Contract Documents and Site

A. It is the responsibility of each Bidder before submitting a Bid, to:

1. examine the Contract Documents thoroughly,

2. visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work,

3. consider federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work; and

4. study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and

5. promptly notify ENGINEER in writing of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between Contract Documents and such related documents.

6. purchase official Procurement Documents from ENGINEER in order to be included on the project Plan Holder List and be considered eligible for bidding.

B. Reference is made to the Supplementary Conditions for the identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGINEER in preparing the Contract Documents.

1. If such reports are not included as appendices to the Contract Documents, OWNER will make copies available to any Bidder requesting them. These reports are included for reference only and are not guaranteed as to accuracy or completeness, nor are they part of the Contract Documents.

2. The Bidder may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for bidding or construction purposes.

3. Before submitting his Bid each Bidder will, at his own expense, make such additional investigations and tests as the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

C. On request OWNER will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid. Bidder shall fill all holes and clean up and restore the site to its former conditions upon completion of such investigations and tests.

D. The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Plans.

E. The locations of utilities as shown on the Plans are taken from sources believed to be reliable. Neither the OWNER nor the ENGINEER will be responsible for any omissions of, or variations from, the indicated location of existing utilities which may be encountered in the Work.

F. The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 1.04, that without exception the Bid is based upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown, indicated or required by the Contract Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in Contract Documents and the resolution by ENGINEER is acceptable to Bidder, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performing and furnishing the Work, and that the time stated in the Proposal is sufficient to complete the project.

1.05 Interpretations and Addenda

A. Should any prospective bidder find discrepancies in, or omissions from the Plans, Specifications or other parts of the Contract Documents, he may submit a written request to the ENGINEER for an interpretation thereof. The person submitting the request will be held responsible for its prompt delivery at least seven (7) days prior to the date for opening of Bids. Questions received less than seven (7) days prior to the date for opening of bids will not be answered. Any interpretation of inquiry will be made by Addendum duly issued to all prospective bidders.

B. Any change in or addition to the Contract Documents deemed necessary by the OWNER shall be made in the form of an Addendum issued to all prospective bidders who have taken out Contract Documents and all such Addenda shall become a part of the Contract Documents as though same were incorporated into same originally. Oral explanations and information do not constitute official notification and are not binding.

1.06 Bid Security

A. Bid Security shall be made payable to OWNER, in an amount of five (5) percent of the Bidder's maximum Bid price and in a form as indicated in the Advertisement. Bid Bonds, if indicated as acceptable in the Advertisement, shall be issued on the form included in the Contract Documents by a Surety meeting the requirements of paragraph 5.01 of the General Conditions.

B. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within 15 days of the Notice of Award, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earliest of the seventh day after the "Effective Date of Agreement" (which term is defined in the General Conditions) or the expiration of the hold period on the Bids. Bid Security of other Bidders will be returned within 14 days of the Bid opening, unless indicated otherwise in the Advertisement.

1.07 Contract Time

A. The number of days within which, or the date by which, the Work is to be Substantially Completed, if applicable, and also completed and ready for final payment (the Contract Time) are set forth in the Proposal and will be included in the Agreement.

1.08 Substitute and "Or-Equal" Items

A. The Contract, if awarded, will be on the basis of materials and equipment described in the Plans or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Plans or specified in the Specifications that a substitute or an "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 Agreement. In addition, in no case shall ENGINEER's denial of CONTRACTOR's application give rise to any claim for additional cost, it being understood by CONTRACTOR that acceptance of substitute or an "or equal" item of material is at the sole discretion of ENGINEER.

1.09 Receipt and Form of Bid

A. Bids shall be submitted at the time and place indicated in the Advertisement for Bids and shall be included in an opaque sealed envelope, marked with the Project title and name and address of the Bidder and accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof. Any Bid received after the scheduled time and place indicated in the Advertisement for Bids shall be returned unopened.

1. OWNER invites bids on the Proposal and other form(s) attached hereto. Bids will be received at the time and place indicated in the Advertisement and thereupon will be publicly opened and read. An abstract of the amounts of the base bids and any major alternates will be made available after the opening of Bids.

2. OWNER may consider as informal any Bid on which there is an alteration of, or departure from the Proposal Form attached hereto.

3. The complete set of Contract Documents must be used in preparing Bids: neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents. In order to verify the completeness of the set of Contract Documents the Bidder used in preparing his Bid, the OWNER may require the Bidder to submit the set of Contract Documents he used in preparing his Bid. The Bidder shall submit his Bid on the separate Proposal form included in these Contract Documents.

4. The Proposal shall be legibly prepared, with ink or typewriter, on the form included in these Contract Documents. All blank spaces in the proposal forms must be correctly filled in where indicated for each and every item for which a quantity is given. Proposals will be compared on basis of lump sum items, if any, and on product of the quantities of items listed at the respective unit prices bid.

5. Erasures or other changes in the Bids must be explained or noted over the signature of the Bidder.

6. Names must be typed or printed below the signature.

7. The quantities as shown in the Proposal are approximate only and will be used as a basis of comparison of Bids, and award of Contracts. Payment will be made on basis of actual quantities of Work performed in accordance with the Contract Documents. The Unit Prices bid, shall include such amounts as the Bidder deems proper for overhead, profit, taxes, General Conditions and such other incidentals as noted in the Contact Documents.

8. The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Proposal Form.

9. The Legal Status of Bidder Form contained in the Contract Documents must be submitted with each Proposal and must clearly state the legal position of a Bidder. In the case of a corporation, the home address, name and title of all officers must be given. In the case of a partnership, show names and home addresses of all partners. If an individual, so state. Any individual bid not signed by the individual must have attached, thereto, a power of attorney evidencing authority to sign.

10. Other documents to be attached to the Proposal and made a condition thereof are identified in the Proposal. The same individual signing the Proposal shall sign these other documents.

1.10 Modifications and Withdrawal of Bids

A. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids. If, within 24 hours after Bids are opened, any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned. Thereafter, at the sole option of OWNER, that Bidder will be disqualified from further Bidding on the Work to be provided under the Contract Documents.

1.11 Award of Contract

A. OWNER reserves the right to reject any and all Bids for any reason, to waive any and all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies in the multiplication of units of work and unit prices, will be resolved in favor of unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

B. In evaluating Bids, OWNER shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data if requested in the Bid forms. It is OWNER's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but OWNER may accept them in any order or combination.

C. Subject to the approval of OWNER, the Contract will be awarded to the lowest responsive and responsible Bidder. Responsibility of Bidder will be determined on basis of past performance and Work of similar character, equipment and labor available to do the Work and financial status.

1. The Contract shall be considered to have been awarded after the approval of the OWNER has been duly obtained and a formal Notice of Award duly served on the successful Bidder by OWNER.

2. The Contract shall not be binding upon the OWNER until the Agreement has been duly executed by the Bidder and the duly authorized officials of the OWNER.

D. If the Contract is to be awarded, OWNER will give the successful Bidder a Notice of Award within 60 days after the day of the Bid opening, unless such other time is specified in the Advertisement for Bids.

1.12 Signing of Agreement

A. Within fifteen (15) days after OWNER gives a Notice of Award to the successful Bidder, the CONTRACTOR shall sign and deliver the specified number of counterparts of the Agreement to OWNER with all other Contract Documents attached. Within ten (10) days thereafter, OWNER will deliver two (2) fully signed counterparts to CONTRACTOR. ENGINEER will identify, date or correct those portions of the Contract Documents not fully signed, dated or executed by OWNER and CONTRACTOR and such identification, dating or correction shall be binding on all parties.

1.13 Sales and Use Taxes

A. Per the tax agreement in effect between the Owner and State of Michigan, this project is exempt from state sales taxes and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. Bidders shall fully cooperate with Owner to effectuate any administrative requirements of the agreement.

1.14 Contracts to be Assigned (Tribal, Michigan, Michigan Veteran Owned Preference)

A. The Contractor agrees to give preference to Tribal, Michigan, and Michigan Veteran owned who can perform the work required, and to the extent feasible consistent with training opportunities, regardless of age (subject to existing laws and regulation), sex, religion, or tribal affiliation, for training and employment opportunities under this contract. The Contractor also agrees to give preference to Indian organizations, Indian-owned economic enterprises, Michigan and Michigan veterans in the awarding of any subcontracts consistent with the effective performance of this contract. The Contractor shall maintain and provide to the Bureau's Contracting Officer; such records as are necessary to indicate compliance with this paragraph. Records must be sufficient to document the significant history of all purchases and must be maintained for a minimum of four (4) years after the end of the Agreement period

1.15 Wage Rate Requirements

A. The Contractor and Subcontractors are required to pay prevailing wage rates.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 00 2213
Supplementary Instructions to Bidders

Part 1 General

1.01 Modifications

A. These Supplementary Instructions to Bidders amend or supplement, Section 00 2113, Instructions to Bidders, as indicated below. All provisions which are not amended or supplemented remain in full force and effect.

B. The terms used in these Supplementary Instructions to Bidders have the meanings assigned to them in the Instructions to Bidders, General Conditions, and as follows:

1. OWNER – Little Traverse Bay Bands of Odawa Indians being a party of the first part of this Contract.

2. ENGINEER - Wade Trim, Inc., or his duly authorized representative.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 00 4243
Proposal

LITTLE TRAVERSE BAY BANDS OF ODAWA INDIANS
7500 ODAWA CIRCLE
HARBOR SPRINGS, MI 49740 Re: YOUTH CENTER SITE IMPROVEMENTS

The undersigned Bidder proposes and agrees, if this Proposal is accepted, to enter into an Agreement with the Little Traverse Bay Bands of Odawa Indians in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

In submitting this Proposal, Bidder represents, as more fully set forth in the Agreement, that;

a) Bidder has examined copies of all Contract Documents which he understands and accepts as sufficient for the purpose, including any and all Addenda officially issued, the receipt of which is hereby acknowledged.

Addendum No.	Date of Release	Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____

b) Bidder has examined the surface and subsurface conditions where the Work is to be performed, the legal requirements and local conditions affecting cost, progress, furnishing or performance of the Work and has made such independent investigations as Bidder deems necessary.

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

The Bidder agrees to complete the Work, in accordance with the Contract Documents, for the following Contract Price:

Item	Description	Quantity	Unit	Unit Price	Amount
1.	Mobilization, Max. 5%	1	LS	$ _____	$ _____
2.	Clearing and Grubbing	1.88	ACRE	$ _____	$ _____
3.	HMA Surface, Rem	76	SYD	$ _____	$ _____
4.	Culv, Rem, Less than 24 inch	1	EA	$ _____	$ _____
5.	Site Grading	1	LS	$ _____	$ _____
6.	Aggregate Base	580	TON	$ _____	$ _____
7.	Aggregate Surface Cse, 6 inch	185	SYD	$ _____	$ _____
8.	HMA, 4EL	106	TON	$ _____	$ _____
9.	HMA, 5EL	106	TON	$ _____	$ _____
10.	Sidewalk, Conc, 6 inch, Thickened Edge	710	SFT	$ _____	$ _____
11.	Sidewalk, Conc, 6 inch	860	SFT	$ _____	$ _____
12.	Culv, Cl F, 12 inch	112	FT	$ _____	$ _____
13.	Culv,, End Section, 12 inch	6	EA	$ _____	$ _____
14.	Pavt Mrkg, Waterborne, 4”, White	170	FT	$ _____	$ _____

15.	Pavt Mrkg, Waterborne, 4", Blue	94	FT	$ _____	$ _____
16.	Pavt Marking, HC Symbol	1	EA	$ _____	$ _____
17.	Sign, Type 1A and steel post, 3#	1	EA	$ _____	$ _____
18.	Silt Fence	675	FT	$ _____	$ _____
19.	Restoration	1	LS	$ _____	$ _____
20.	Connect to Existing Watermain	1	EA	$ _____	$ _____
21.	6-inch, PVC Watermain, C-900	453	FT	$ _____	$ _____
22.	Corp Stop and Box	1	EA	$ _____	$ _____
23.	Water Service, 1.5-inch, Type K Copper	109	FT	$ _____	$ _____
24.	Blow-off Hydrant	1	EA	$ _____	$ _____
25.	Pressure Test and Disinfect Water Main	1	LS	$ _____	$ _____
26.	2,600-gal Septic Tank with Effluent Filter	1	EA	$ _____	$ _____
27.	1,000-gal Dosing Tank	1	EA	$ _____	$ _____
28.	Pumps, Floats, Guiderails and Controls	1	LS	$ _____	$ _____
29.	Sanitary Forcemain, 1.5-inch	35	FT	$ _____	$ _____
30.	Absorption Bed Drainfield	1	LS	$ _____	$ _____
31.	Testing	1	LS	$ _____	$ _____

TOTAL BASE CONTRACT PRICE
(Items 1 through 31) $ _____
(numeric)

_____
(In Words)

Schedule of Alternatives – The bidder will complete the parts of the Work designated in the Alternatives that follow and accept in full payment for those parts of the Work the following Item Bid Prices

Item	Description	Quantity	Unit	Unit Price	Amount
1.	Tree - Acer rubrum - Red Maple - 1.5-2.5"	2	EA	$ _____	$ _____
2.	Tree - Acer saccharum - Sugar Maple - 1.5-2.5"	2	EA	$ _____	$ _____
3.	Tree - Amelanchier arborea - Downy Serviceberry - 5-6' HT	6	EA	$ _____	$ _____
4.	Tree - Betula papyrifera - Paper Birch - 1.5-2.5"	4	EA	$ _____	$ _____
5.	Tree - Juniperus virginiana - Eastern Red Cedar - 7-8' HT	4	EA	$ _____	$ _____
6.	Tree - Malus x adstringens 'Durelo' - Gladiator Cr. App. - 7-8' HT	8	EA	$ _____	$ _____
7.	Tree - Pinus resinosa - Red Pine - 7-8' HT	5	EA	$ _____	$ _____
8.	Shrub - Ilex verticillata - Winterberry - 3-5 GAL	5	EA	$ _____	$ _____
9.	Shrub - Physocarpus opulifolius - Common Ninebark - 3 GAL	4	EA	$ _____	$ _____
10.	Deluxe Pollinator Seed Mix	26	LB	$ _____	$ _____
11.	Double Shredded Hardwood Mulch	10	CYD	$ _____	$ _____

TOTAL ALTERNATIVE CONTRACT PRICE
(Items 1 through 11) $ _____
(numeric)

_____
(In Words)

The Bidder further acknowledges and agrees that the separate prices bid on this "Schedule of Alternatives" where they are applicable and deemed acceptable to the Owner, will be used if incorporated into the Contract when the Owner issues the Notice of Award.

The undersigned, as Bidder, hereby certifies that he or a qualified designated person in his employ has examined the Contract Documents provided by OWNER for bidding purposes. Further, the undersigned certifies that he or his qualified employee has reviewed the Bidder's proposed construction methods and finds them compatible with the conditions and from the information provided for Bidding.

The undersigned, as Bidder, shall complete the Work under any job circumstances or field conditions present and/or ascertainable prior to bidding. In addition, he shall also complete the Work under whatever conditions he may create by his own sequence of construction, construction methods, or other conditions he may create, at no additional cost to OWNER.

The undersigned, as Bidder, declares that he has familiarized himself with the location of the proposed Work and the conditions under which it must be constructed. Also, that he has carefully examined the Plans, the Specifications, and the Contract Documents, which he understands and accepts as sufficient for the purpose and agrees that he will Contract with OWNER to furnish all labor, material, tools, and equipment necessary to do all Work specified and prescribed for the completion of the Project.

The undersigned agrees, if awarded Contract, to sign the Agreement and submit satisfactory bonds and certificates of insurance coverage and other evidence of insurance required by the Contract Documents within **10 days** after the date of OWNER'S Notice of Award.

The undersigned agrees that time is of the essence and, if awarded Contract, that all the Work except, HMA paving, pavt markings, sign, restoration and landscape work, will be Substantially Completed on or before January 21, 2027, and Final Completed by January 28, 2027. The remainder of the Work shall be Substantially Completed on or before June 23, 2027, and Final Completed by June 30, 2027.

Liquidated damages, as specified in the General Conditions, Supplementary Conditions and Agreement, shall also apply to the above Substantial Completion dates.

Engineering and inspection costs incurred after the above final completion date shall be paid by CONTRACTOR to OWNER as specified in the Conditions of the Contract and Agreement.

Proposals may not be withdrawn for a period of sixty (60) days after bid opening.

The following documents are attached to and made a condition of this Proposal:

a) Required Bid security in the form checked below:

☐ Certified Check ☐ Cashier's Check ☐ Money Order ☐ Bid Bond

b) Legal Status of Bidder.

c) Bidder's Name: _____

By: _____
(Signature) *(Printed Name)*

Address: _____

_____

Phone No.: _____ Fax No.: _____

Email: _____

Section 00 4313
Bid Bond Form

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

as Principal, hereinafter called the Principal, and _____

a corporation duly organized under the laws of the State of _____, and duly authorized to transact business in the state of Michigan, as Surety, hereinafter called the Surety, are held and firmly bound unto the Little traverse Bay Bands of Odawa Indians, hereinafter called the OWNER, in the sum of _____ Dollars ($ _____)

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a Bid for _____

_____

_____

_____

_____

NOW, THEREFORE, if the OWNER shall accept the Bid of the Principal and the Principal shall enter into a Contract with the OWNER in accordance with the terms of such Bid, and give such Bond or Bonds as may be specified in the Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such Bond or Bonds, if the Principal shall pay to the OWNER the difference not-to-exceed the penalty hereof between the amount specified in said Bid and such larger amount for which the OWNER may in good faith contract with another party to perform the Work covered by said Bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and Sealed this _____ day of _____, 20____.

_____ (Witness)

_____ (Principal)

_____ (Title)

_____ (Witness)

_____ (Surety)

_____ (Title)

Section 00 4345
Legal Status of Bidder

This Proposal is submitted in the name of:

(Print) _____

The undersigned hereby designates below his business address to which all notices, directions or other communications may be served or mailed:

Street _____

City _____

State _____ Zip Code _____

The undersigned hereby declares that he has legal status checked below:

- ☐ SOLE PROPRIETOR
- ☐ SOLE PROPPRIETOR DOING BUSINESS UNDER AN ASSUMED NAME
- ☐ CO-PARTNERSHIP
  The Assumed Name of the Co-Partnership is registered in the County of _____, Michigan
- ☐ CORPORATION INCORPORATED UNDER THE LAWS OF THE STATE OF _____. The Corporation is
  - ☐ authorized to conduct business in the State of Michigan
  - ☐ not now authorized to conduct business in the State of Michigan
  - ☐ possess all required licenses for the work being bid
  - ☐ limited liability corporation

The name, titles, and home addresses of all persons who are officers or partners in the organization are as follows:

NAME AND TITLE	HOME ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____

Signed this _____ day of _____, 20____.

_____
By (Signature)

_____
Printed Name of Signer

_____
Title

Section 00 4553
Build America, Buy America (BABA) Requirements

The Contractor acknowledges to and for the benefit of the Little Traverse Bay Bands of Odawa Indians ("Owner") and the State of Michigan (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority that (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

Section 00 5100
Notice of Award

To: _____ Date: _____, 20_____

_____

_____

Attention: _____

Project: LTBBOI Governmental Complex, Youth Center

Pursuant to the provisions of Article 1.11 of the Instructions to Bidders, you are hereby notified that the Little Traverse Bay Bands of Odawa Indians (OWNER) during a _____ Meeting held on _____, _____, 20_____, has directed the acceptance of your Bid for the above-referenced Project in the amount of $_____ ( ). This project shall consist of _____

_____

as delineated in your Bid submitted to the _____

on _____.

Please comply with the following conditions within 15 days of the date of this Notice of Award; that is by _____, _____, 20_____.

1. Deliver to the ENGINEER **( )** fully executed counterparts of the Agreement including all the Contract Documents.

2. Deliver with the executed Agreement the Contract Security (Bonds), on the form included in the Contract Documents, as specified in the General Conditions (Article 5).

3. Deliver with the executed Agreement the Insurance Certificates (and other evidence of insurance) as specified in the General Conditions (Article 5).

4. Please do not date Agreement and Contract Security (Bonds), as these will be dated by the OWNER when executed by him.

It is important to comply with these conditions and time limits as failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten (10) days after you comply with those conditions, OWNER will return to you two (2) fully signed counterparts of the Agreement with the Contract Documents attached.

In accordance with paragraph 2.05 of the General Conditions, please submit to the ENGINEER the required schedules prior to the scheduling of a Pre-Construction Meeting.

Copy to ENGINEER:
Wade Trim, Inc.
4241 Old US 27 South, Suite 1
Gaylord, Michigan 49735

_____
(OWNER)

By: _____
(Authorized Signature)

Section 00 5200
Agreement

This Agreement, made and entered into this _____ day of _____ in the year 20_____ by and between the L:ittle Traverse Bay Bands of Odawa Indians hereinafter called OWNER, and _____ _____ hereinafter called CONTRACTOR, in consideration of the mutual covenants hereinafter sent forth, 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:

Construction of site improvement for a new Youth Center at the Little Traverse Bay Bands of Odawa Indians Governmental Comple. Construction includes clearing, site grading, aggregate base, HMA paving, concrete sidewalk, ADA ramp, pavement markings, onsite sewage disposal field, septic tanks, sewage dosing pumps, forcemain, 6-inch watermain, blow-off hydrant, 1.5-inch water service, landscaping, and site restoration.

ARTICLE 2. CONTRACT TIME

2.1 The Work, except, HMA paving, pavt markings, sign, restoration and landscape work will be substantially completed on or before **January 21, 2027**, and final completed by **January 28, 2027.** The remainder of the work will be substantially completed on or before **June 23, 2027**, and ready for final payment in accordance with paragraph 14.11 of the General Conditions on or before **June 30, 2027**.

2.2 Engineering and inspection costs incurred after the specified final completion date shall be paid by the CONTRACTOR to the OWNER prior to final payment authorization. Charges shall be made at such times and in such amounts as the ENGINEER shall invoice the OWNER, provided however said charges shall be in accordance with the ENGINEER's current rate schedule at the time the costs are incurred. The costs of ENGINEER incurred after the specified final completion date shall be deducted from the CONTRACTOR's progress payments.

2.3 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not Substantially Complete within the time specified in Article 2.1 above for each phase, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They 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 Substantially Complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as penalty) CONTRACTOR shall pay OWNER **Five Hundred** Dollars (**$500.00)** for each day that expires after the time specified in Article 2.1 for each Substantial Completion date until the Work is Substantially Complete for each phase. Liquidated damages charged shall be deducted from the CONTRACTOR's progress payment.

ARTICLE 3. CONTRACT PRICE

3.1 OWNER shall pay CONTRACTOR as provided in the attached Proposal for performance of the Work in accordance with the Contract Documents.

ARTICLE 4. PAYMENT PROCEDURES

Progress payments and retainage under this Contract are governed by the provisions of PA 1980, No. 524 (MCLA 125.1561 et seq.). That Act is incorporated herein by reference and made a part of this Contract.

Without excluding any provisions of the Act from this Contract, but in order to comply therewith and summarize certain provisions, the following shall apply:

4.1 The person representing CONTRACTOR who will submit written requests for progress payments shall be: _____

4.2 The person representing OWNER to whom requests for progress payments are to be submitted shall be: _____

4.3 CONTRACTOR's representative, listed above, shall submit Applications for Payment on the form provided in the Contract Documents in accordance with Article 14 of the General Conditions. Applications for Payment will be processed as provided in the General Conditions.

ARTICLE 5. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

5.1 CONTRACTOR has considered the nature and extent of the Contract Documents, Work, locality, and all local conditions and federal, state and local laws, and regulations that may affect cost, progress, performance, or furnishing of the Work.

5.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon in the preparation of the Plans and Specifications and which have been identified in the Supplementary Conditions.

5.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in Article 5.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

5.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

5.5 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

ARTICLE 6. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Contract between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

6.1 Procurement Requirements (including Advertisement for Bids, Instructions to Bidders, Supplementary Instructions to Bidders, Proposal, Legal Status of Bidder, and other documents listed in the Table of Contents thereof).

6.2 This Agreement

6.3 Performance and other Bonds

6.4 Notice of Award

6.5 Notice to Proceed (if issued)

6.6 Conditions of the Contract (including General Conditions and Supplementary Conditions, if any)

6.7 Specifications contained within Division 01 through 49 of the Contract Documents dated August 2026.

6.8 Plans consisting of sheets dated August 21 and numbered C-001through L-003 inclusive with each sheet bearing the following general title: Governmental Complex, Youth Center Site Improvements

6.9 Addenda numbers _____ to _____, inclusive

6.10 Documentation submitted by CONTRACTOR prior to Notice of Award

6.11 Any Modification, including Change Orders, duly delivered after execution of Agreement.

ARTICLE 7. MISCELLANEOUS

7.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

7.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on any other party without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies 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.

7.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

7.4 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, the parties hereto have signed this Agreement in _____ counterparts. _____ counterparts each have been delivered to OWNER and CONTRACTOR, one counterpart has been delivered to the ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR.

This Agreement will be effective on _____, _____, 20_____.

OWNER _____

By _____

Attest _____

Address for giving notices

_____

_____

_____

CONTRACTOR _____

By _____

Attest _____

Address for giving notices

_____

_____

_____

License No. _____

Agent for service of process: _____

_____

Section 00 5500
Notice to Proceed

To: _____ Date: _____, 20_____

_____

_____

Attention: _____

Project:

Please note that the Contract Time under the above Contract will commence to run on _____, _____, 20_____. Within ten (10) days of this date you are to start performing the Work. The dates of Substantial Completion and Final Completion are set forth in the Agreement: they are _____, and _____, respectively.

In accordance with paragraph 2.05 of the General Conditions, please submit to the ENGINEER the required schedules prior to the scheduling of a Pre-Construction Meeting.

Also, in accordance with paragraph 2.05 of the General Conditions, please request a Pre-Construction Meeting from the ENGINEER prior to delivery of any materials or start of any construction. A minimum of three (3) full working days notice is required to set up the Pre-Construction Meeting. Also, please notify the ENGINEER three (3) full working days in advance of any staking requirements or other activity on the Project.

Work at the site must be started by _____, _____, 20_____.

Copy to ENGINEER:
Wade Trim, Inc.
4241 Old US27 South, Suite 1
Gaylord, Michigan 49735

_____
(OWNER)

By: _____
(Authorized Signature)

Section 00 6112
Performance Bond

Bond No. _____

KNOW ALL BY THESE PRESENT, That we, _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business in the State of Michigan, hereinafter called the "Principal," and _____ _____, a corporation organized and existing under the laws of the State of _____ _____, and duly authorized to transact business in the State of Michigan, as Surety, hereinafter called "Surety", are held and firmly bound unto _____, as Obligee, and hereinafter called "Obligee," in the just and full sum of _____ Dollars ($_____) lawful money of the United States of America, to be paid to the said Obligee, to which payment well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION is such that, WHEREAS, the above Principal has entered into a contract with the said Obligee, dated the _____ day of _____, _____, for

_____

_____

_____

_____.

Herein referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein, and

WHEREAS, it was one of the conditions of the award of the said Obligee, pursuant to which said contract was entered into, that these presents should be executed.

AND THE SAID SURETY, for value received, hereby stipulates and agrees that no change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the work to be performed thereunder or the Contract Documents accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the Work or to the Contract Documents.

NOW, THEREFORE, if the above Principal shall in all respects comply with the terms and conditions of said contract, and his (their or its) obligations thereunder, including the Contract Documents therein referred to and made a part thereof, and such alteration as may be made in such contract or Contract Documents, as herein or therein provided for, then this obligation shall be void; otherwise, this bond and obligation shall be and remain in full force and effect.

Signed and sealed this _____ day of _____.

Signed, sealed and delivered in the presence of:

_____	_____
Witness for CONTRACTOR	(Principal)
	_____
	(Title)
	By _____
_____	_____
Witness for Surety	(Surety)
	_____
	(Title)
_____	By _____
Attorney-In-Fact (Seal)	
_____	_____
Address	Address of Surety
_____	_____
City Zip Code	City Zip Code
_____	_____
Telephone	Telephone

Section 00 6113
Labor and Material Payment Bond

Bond No. _____

KNOW ALL BY THESE PRESENT, that we, _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business in the State of Michigan, hereinafter called the "Principal," and _____ _____, a corporation organized and existing under the laws of the State of _____ _____, and duly authorized to transact business in the State of Michigan, as Surety, hereinafter called "Surety", are held and firmly bound unto _____, as Obligee, and hereinafter called "Obligee," in the just and full sum of _____Dollars ($_____), lawful money of the United States of America, to be paid to the said Obligee, to which payment well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION is such that, WHEREAS, the above Principal has entered into a contract with the said Obligee, dated the _____ day of _____, _____, for

_____

_____

_____,

which contract is herein referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein, and

WHEREAS, it was one of the conditions of the award of the said Obligee, pursuant to which said contract was entered into, that these presents should be executed.

AND WHEREAS, this Bond is given in compliance with and subject to the provisions of Act No. 213 of the Public Acts of Michigan for the year 1963, as amended, including all notices, time limitation provisions and other requirements set forth therein, which are incorporated herein by reference.

AND THE SAID SURETY, for value received, hereby stipulates and agrees that no change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the Work to be performed thereunder or the Contract Documents accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the Work or to the Contract Documents.

NOW, THEREFORE, the condition of this obligation is such that if all claimants as defined in Act No. 213 of the Public Acts of Michigan for the year 1963, as amended, are timely paid for all labor and material used or reasonably required for use in the performance of the contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Signed and sealed this _____ day of _____.

Signed, sealed and delivered in the presence of:

_____	_____
Witness for CONTRACTOR	(Principal)
	_____
	(Title)
	By _____
_____	_____
Witness for Surety	(Surety)
	_____
	(Title)
_____	By _____
Attorney-In-Fact (Seal)	
_____	_____
Address	Address of Surety
_____	_____
City Zip Code	City Zip Code
_____	_____
Telephone	Telephone

Section 00 6275
Engineer's Certificate for Payment

Job Number: _____ Certificate Number: _____ Date: _____

OWNER: _____

CONTRACTOR: _____

Project: _____

Contract Date: _____

Substantial Completion Date: _____ Extended To: _____

Completion Date: _____ Extended To: _____

Original Contract Price		Total Earned To Date	
Adjustments to Quantities		Retention	
Extras		Deductions	
Total Change Orders		Total Withheld	
Amended Contract Price		Total Net Due	
Less Total Net Due		Less Previous Certificates	
Balance on Contract		Total Balance Due this Certificate	

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on the data comprising the above application, the ENGINEER to the best of his knowledge, information, and belief and subject to the limitations stated in the Contract Documents certifies to the OWNER that: (1) Work has progressed to the point indicated, (2) that the quality of the Work is in accordance with the Contract Documents, and (3) the CONTRACTOR is entitled to payment of the Total Balance Due This Certificate.

Certified _____ Recommended _____

ENGINEER Date Date

Section 00 6521
Prevailing Federal Wage Rate – Davis Bacon Act

Part 1 General

1.01 Summary

A. P.L. 111-88 requires compliance with the Davis Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. A copy of the Federal Labor Standards Provisions is included and is hereby a part of this contract.

B. In case there is an omission of any trade from the list of wage and fringe benefit rates to be paid to each class of mechanic by CONTRACTOR, it shall be understood that the trades omitted shall also be paid not less than the wage and fringe benefit rates prevailing in the locality in which the work is to be performed.

C. A finding by the U.S. Department of Labor's Wage and Hour Division that CONTRACTOR or subcontractor is in violation of the requirements of the contract shall be final.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

See Appendix for Wage Rate Determination.

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Article 1 Definitions

1.01 Defined Terms

A. Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

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

2. Agreement -- The written Agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

3. Application and Certificate for Payment -- The form included in the Contract Documents which is to be used by CONTRACTOR in requesting progress or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. Bid -- The offer or proposal of the bidder submitted on the prescribed form setting forth the price(s) for the Work to be performed.

5. Bidding Requirements -- The Advertisement for Bids, Instructions to Bidders, Supplementary Instructions to Bidders, Proposal, Legal Status of Bidder, Bid Bond, and any other documents identified in the Proposal, to be submitted with the Bid.

6. Bonds -- Bid, Performance and Payment bonds and other instruments of security.

7. Change Order -- A written order to CONTRACTOR, reviewed by the ENGINEER and signed by OWNER, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Price or the Contract Time. The Contract Price and Contract Time may be changed only by Change Order. A Change Order signed by CONTRACTOR indicates his agreement therewith, including that the Change Order constitutes a final adjustment in the Contract Price or Contract Time for all issues addressed or described in the Change Order.

8. Change Proposal -- A written request by CONTRACTOR, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by ENGINEER concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

9. Claims --

   a. A demand or assertion by OWNER directly to CONTRACTOR, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by ENGINEER concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting ENGINEER's decision regarding a Change Proposal; seeking resolution of a contractual issue that ENGINEER has declined to address; or seeking other relief with respect to the terms of the Contract.

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b. A demand or assertion by CONTRACTOR directly to OWNER, duly submitted in compliance with the procedural requirements set forth herein, contesting ENGINEER's decision regarding a Change Proposal, or seeking resolution of a contractual issue that ENGINEER has declined to address.

c. A demand or assertion by OWNER or CONTRACTOR, duly submitted in compliance with the procedural requirements set forth herein, arising after ENGINEER has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

10. Constituents of Concern -- Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

11. Contract -- The entire and integrated written contract between OWNER and CONTRACTOR concerning the Work

12. Contract Documents -- Those items so designated in the Agreement, and which together comprise the Contract.

13. Contract Price -- The monies or other considerations payable by OWNER to CONTRACTOR for completion of acceptable Work in accordance with the Contract Documents as stated in the Agreement.

14. Contract Time -- The number of days or the date stated in the Agreement:

a. to achieve Substantial Completion of all or any specified portions of the Work, and;

b. to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.11.

15. CONTRACTOR -- The person, firm or corporation with whom OWNER has entered into the Agreement.

16. Cost of the Work -- The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined in paragraph 12.01.

17. Day -- A calendar day of 24 hours measured from midnight to the next midnight.

18. Defective -- An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment.

19. Drawings -- See Plans.

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20. Effective Date of 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.

21. Electronic Document -- Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

22. Electronic Means -- Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow:

    a. the transmission or communication of Electronic Documents;

    b. the documentation of transmissions, including sending and receipt;

    c. printing of the transmitted Electronic Document by the recipient;

    d. the storage and archiving of the Electronic Document by sender and recipient; and

    e. the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

23. ENGINEER -- The person, firm, or corporation identified in the Supplementary Instructions to Bidders hired by OWNER to prepare Plans and Specifications for the Project and to assist OWNER in interpreting Plans and Specifications during the performance of the Work. ENGINEER's authority and responsibility are set forth in the Contract between OWNER and ENGINEER. CONTRACTOR acknowledges and agrees that ENGINEER's obligations and duties under ENGINEER's contract with OWNER are obligations and duties to OWNER only, and ENGINEER has no independent obligation to CONTRACTOR of any kind, including but not limited to providing services, or to take any action or to refrain from taking action on behalf of CONTRACTOR or any Subcontractor, Sub-Subcontractor or Supplier.

24. Field Order -- A written order issued by ENGINEER which clarifies or interprets the Contract Documents or orders minor changes in the Work in accordance with paragraphs 9.04 and 9.05 but which does not involve a change in the Contract Price or the Contract Time.

25. Hazardous Environmental Conditions -- The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

    a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

    b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

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c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

26. 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.

27. Lump Sum -- Construction Work where the OWNER pays a single stipulate price (Lump Sum) for the entire scope of Work; plus or minus alternates and/or allowances. However, unit prices may be required for individual items of Work for the purposes of changes, additions, or deletions.

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

29. Notice of Award -- The written notice by OWNER to the apparent successful Bidder stating that, upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

30. Notice to Proceed -- A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform his obligation under the Contract Documents.

31. OWNER -- The public body or authority, corporation, limited liability company, association, partnership, or individual with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided and as identified in the Supplementary Instructions to Bidders.

32. Partial Utilization -- Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

33. Plans -- The part of the Contract Documents which graphically show the extent, character and Scope of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by the ENGINEER or OWNER; sometimes also referred to as Drawings.

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

35. Project -- The total construction of which the Work to be provided under the Contract Documents may be the whole or a part as indicated elsewhere in the Contract Documents.

36. Project Manual -- The volume assembled for the Project which may include, among other parts, Procurement Requirements, Contracting Requirements and Specifications.

37. Proposal -- The offer or bid of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

38. Radioactive Material -- Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 as amended.

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

40. 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.

41. Schedule of Submittals -- A schedule, prepared and maintained by CONTRACTOR, of required Submittals and the time requirements for ENGINEER's review of the Submittals.

42. 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.

43. Shop Drawings -- All drawings, diagrams, illustrations, schedules and other data or information required by the Contract Documents which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

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

45. Specifications -- That part of the Contract Documents which consist of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

    a. Project Specifications are those portions of the Contract Documents which have been prepared specifically for this Project and which are identified by the job number in the lower right-hand corner of each page.

    b. Standard Specifications are Specification sections that are the same from Project to Project as of the revision date shown in the lower left-hand corner of the page.

    c. Standard Specification Section Revisions -- Section 00 9120 of the Specifications which amends or supplements the Standard Specification Sections.

46. Subcontractor -- An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

47. Submittal -- A written or graphic document, prepared by or for CONTRACTOR, which the Contract Documents require CONTRACTOR to submit to ENGINEER, or that is indicated as a Submittal in the Schedule of Submittals accepted by ENGINEER. Submittals may include Shop Drawings and Samples; schedules; product data; OWNER-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record

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documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by ENGINEER, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

48. Substantial Completion -- The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by the Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.11. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

49. Supplementary Conditions -- The part of the Contract Documents which amends or supplements these General Conditions.

50. Supplementary Instructions to Bidders -- The part of the Contract Documents which amends or supplements the Instructions to Bidders.

51. Supplier -- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with CONTRACTOR, or with any Subcontractor, or with OWNER, to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

52. Unit Price -- Construction Work where the OWNER pays a fixed sum (Unit Price) per each completed unit of Work. Units are listed on the Proposal Form.

53. Utilities – Underground or above ground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any structures or encasements containing such facilities, which have been installed to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, water or other liquids or chemicals.

54. Work -- The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

55. Work Change Directive -- A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and reviewed by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.03 or to emergencies under paragraph 6.18. A Work Change Directive will not change the Contract Price or Contract Time but is evidence that the parties expect that the change directed 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 Time as provided in paragraph 10.01.

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1.02 Terminology

A. The following words, terms, or phrases are not defined but, when used in the Contract Documents, have the following meaning:

1. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used; or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the technical 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 shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

2. 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.

3. 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.

4. 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.

5. 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.

B. 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 Insurance

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds and Insurance Certificates and other evidence of Insurance requested as CONTRACTOR may be required to furnish in accordance with Article 5. No Work at the site may begin or progress payments made to CONTRACTOR until all Bonds and Insurance Certificates in the form and substance required in Article 5 have been submitted and approved by OWNER.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to 5copies of the Contract Documents (including at least one fully signed counterpart of the Agreement) as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

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2.03 Commencement of Contract Time; Notice to Proceed

A. Time is of the essence in the performance of the Work. The Contract Time will commence to run on the 30th 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 Time commence to run later than the 30th day after the effective date of the Agreement. Time limits stated in the Contract Documents are of the essence of the Agreement.

2.04 Starting the Project

A. CONTRACTOR shall start to perform the Work within 10 days of when the Contract Time commences to run, but no Work shall be done at the Site prior to the date on which the Contract Time commences to run. CONTRACTOR shall notify the ENGINEER at least 3 working days in advance of the time he intends to start Work.

2.05 Preconstruction Meeting

A. Within 10 days of the Effective Date of the Agreement and prior to the delivery of materials or the start of any construction, the CONTRACTOR shall request a Preconstruction Meeting from ENGINEER. A minimum of 3 full working days' notice shall be required.

B. Prior to the scheduling of the Preconstruction Meeting, CONTRACTOR shall submit to ENGINEER for review:

1. A preliminary Progress Schedule indicating the starting and completion dates of the various stages of the Work, including any Milestones specified in the Contract Documents;

2. A preliminary Schedule of Submittals which will list each required Submittal and the times for submitting, reviewing and processing such Submittal;

3. An estimated monthly payment schedule, and a preliminary Schedule of Values for all of the Work.

C. The Preconstruction Meeting will be held for review and acceptance of the schedules, to establish procedures for handling Shop Drawings and other Submittals, for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

2.06 Electronic Transmittals

A. Except as otherwise stated elsewhere in the Contract, the OWNER, ENGINEER, and CONTRACTOR may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then OWNER, ENGINEER, and CONTRACTOR shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

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Article 3 Contract Documents Intent and Reuse

3.01 Intent

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

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. ENGINEER will issue clarifications and interpretations of the Contract Documents as provided herein.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon OWNER and CONTRACTOR, which agree that the Contract Documents will 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.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between OWNER or ENGINEER and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations; or

3. any obligation on the part of ENGINEER to CONTRACTOR.

3.02 Reference to Standards and Specifications of Technical Societies

A. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, 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.

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 Work, 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 shall be furnished and performed whether or not it is specifically called for.

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C. No provision of any standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.10 or any other provision of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. 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 has a duty to and shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR should reasonably have discovered and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby.

B. 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 report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.18) until receiving written instruction or clarification from ENGINEER or OWNER. However, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

C. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement issued by one of the methods indicated in paragraph 3.05, 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;

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

2. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Requirements of Contract Documents

A. During the performance of the Work and until final payment, CONTRACTOR and OWNER shall submit to the ENGINEER in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. ENGINEER will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

B. ENGINEER will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. ENGINEER's written clarification, interpretation, or decision will be final and binding on CONTRACTOR, unless it appeals by submitting a Change Proposal, and on OWNER, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve

1. the performance or acceptability of the Work under the Contract Documents,

2. the design (as set forth in the Drawings, Specifications, or otherwise), or

3. other engineering or technical matters, then ENGINEER will promptly notify OWNER and CONTRACTOR in writing that ENGINEER is unable to provide a decision or interpretation. If OWNER and CONTRACTOR are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in paragraph 11.01.

3.05 Order of Precedence

A. In resolving conflicts, errors or discrepancies between Plans and Specifications,

1. figured dimensions shall govern over scaled dimensions;

2. Plans shall govern over Standard Specifications;

3. and Project Specifications shall govern over Standard Specifications and Plans.

3.06 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 in one or more of the following ways:

1. a Field Order (pursuant to paragraph 9.05), or,

2. a Change Order (pursuant to paragraph 10.01.A.1), or

3. a Work Change Directive Order (pursuant to paragraph 10.01.A.2)

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

1. a Field Order (pursuant to paragraph 9.05),

2. ENGINEER's review of a Shop Drawing or Sample (pursuant to paragraph 6.21), or

3. ENGINEER's written interpretation or clarification (pursuant to paragraph 9.04).

3.07 Reuse of Documents

A. Neither CONTRACTOR nor any Subcontractor, manufacturer, fabricator, Supplier, distributor, or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER:

1. shall have or acquire any title to or ownership rights in any of the Plans, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, and

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2. they shall not reuse any of such Plans, Specification, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

3.08 Electronic Data

A. Except as otherwise stated elsewhere in the Contract Documents, OWNER, ENGINEER and CONTRACTOR may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information and graphics, including but not limited to Shop Drawings and other Submittals, in electronic media or digital format, either directly or through access to a secure Project website.

B. 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; Reference Points

4.01 Availability of Lands

A. OWNER shall furnish, as indicated in the Contract Documents and not later than the established date for beginning Work on the Contract, the lands upon which the Work is to be performed, rights of way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment unless otherwise provided in the Contract Documents.

4.02 Subsurface and Physical Conditions; Investigations and Reports

A. Reference is made to the Supplementary Conditions for identification of those reports of investigations and tests of subsurface and physical conditions at the Site or otherwise affecting cost, progress or performance of the Work which have been reviewed in preparation of the Contract Documents. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

B. The locations of utilities or other physical conditions relating to existing surface or subsurface structures at or contiguous to the Site as shown on the Plans are taken from drawings from sources believed to be reliable. Neither the OWNER nor ENGINEER will be responsible for any omissions of, or variations from, the indicated location of existing utilities which may be encountered in the Work.

C. CONTRACTOR shall draw its own conclusions as to the general accuracy of the "technical data" contained in such reports and drawings, and confirms such reports and drawings are not Contract Documents. CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

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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 data, interpretations, opinions or information.

2. The cost of all 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 Utilities during construction,

c. coordination of the Work with the owners of such Utilities, and

d. the safety and protection of all such Utilities as provided in paragraph 6.15 and repairing any damage thereto resulting from the Work.

4.03 Unforeseen Physical Conditions

A. A. If CONTRACTOR discovers one or both of the following physical conditions of surface or subsurface at the Project or improvement Site, before disturbing the physical condition, the CONTRACTOR shall immediately notify OWNER and ENGINEER of the physical condition; and follow up within 48 hours in writing:

1. A subsurface or a physical condition at the Site differing materially from those indicated in the Contract Documents, or

2. An unknown physical condition at the Site of a nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for the improvement project.

B. ENGINEER's Review. After receipt of written notice as required by the preceding paragraph, ENGINEER will promptly review the subsurface or physical condition in question; determine the necessity of OWNER's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in paragraph 4.03.A above; obtain any pertinent cost or schedule information from CONTRACTOR; prepare recommendations to OWNER regarding the CONTRACTOR's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise OWNER in writing of ENGINEER's findings, conclusions, and recommendations.

C. OWNER's Statement to CONTRACTOR Regarding Site Condition. After receipt of ENGINEER's written findings, conclusions, and recommendations, OWNER shall issue a written statement to CONTRACTOR (with a copy to ENGINEER) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting ENGINEER's written findings, conclusions, and recommendations, in whole or in part.

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D. Possible Price and Times Adjustments.

1. CONTRACTOR shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must fall within any one or more of the categories described in paragraph 4.03.A;

   b. with respect to Work that is paid for on a Unit Price basis, any adjustment in Contract Price will be subject to the provisions of paragraph 12.03; and

   c. CONTRACTOR's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to CONTRACTOR's ability to complete the Work within the Contract Times pursuant to paragraph 10.05.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

   a. CONTRACTOR knew of the existence of such condition at the time CONTRACTOR made a commitment to OWNER with respect to Contract Price and Contract times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

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

   c. CONTRACTOR failed to give the written notice as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR agree regarding CONTRACTOR's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order or Work Change Directive.

4. CONTRACTOR may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after OWNER's issuance of the OWNER's written statement to CONTRACTOR regarding the subsurface or physical condition in question.

4.04 Utilities

A. CONTRACTOR's Responsibilities. The information and data shown or indicated in the Contract Documents with respect to existing Utilities at or adjacent to the Site, if any, is based on information and data furnished to OWNER or ENGINEER by the owners of such Utilities, including OWNER, or by others.

1. OWNER and ENGINEER do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

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

   a. reviewing and checking all information and data regarding existing Utilities at the Site;

   b. locating all Utilities shown or indicated in the Contract Documents as being at the Site;

   c. coordination of the Work with the owners (including OWNER) of such Utilities, during construction; and

   d. the safety and protection of all existing Utilities at the Site, and repairing any damage thereto resulting from the Work.

B. Notice by CONTRACTOR. If CONTRACTOR believes that an Utilities that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.18), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER.

C. ENGINEER's Review. ENGINEER will:

1. promptly review the Utilities and conclude whether such Utilities was not shown or indicated in the Contract Documents,

2. or was not shown or indicated with reasonable accuracy;

3. obtain any pertinent cost or schedule information from CONTRACTOR;

4. prepare recommendations to OWNER regarding the CONTRACTOR's resumption of Work in connection with the Utilities in question;

5. determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Utilities;

6. and advise OWNER in writing of ENGINEER's findings, conclusions, and recommendations.

During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

D. OWNER's Statement to CONTRACTOR Regarding Utilities. After receipt of ENGINEER's written findings, conclusions, and recommendations, OWNER shall issue a written statement to CONTRACTOR (with a copy to ENGINEER) regarding the Utilities in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting ENGINEER's written findings, conclusions, and recommendations in whole or in part.

E. Possible Price and Times Adjustments:

1. CONTRACTOR shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Utilities at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Utilities in question;

b. With respect to Work that is paid for on a Unit Price basis, any adjustment in Contract Price will be subject to the provisions of paragraph 12.03;

c. CONTRACTOR's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to CONTRACTOR's ability to complete the Work within the Contract Times; and

d. CONTRACTOR gave the notice required in paragraph 4.04.B.

2. If OWNER and CONTRACTOR agree regarding CONTRACTOR's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. CONTRACTOR may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after OWNER's issuance of the OWNER's written statement to CONTRACTOR regarding the Underground Facility in question.

4.05 Reference Points

A. OWNER shall provide engineering surveys for construction to establish property corners, monuments, bench marks and similar reference points which in his judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for the preservation of established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations. Reference points destroyed by negligence of CONTRACTOR will be replaced by OWNER at the expense of CONTRACTOR. Construction Staking will be furnished by OWNER as provided in Division 01 of the Specifications.

4.06 Constituents of Concern

A. OWNER shall be responsible for any Constituents of Concern uncovered or revealed at the Site which was not shown or indicated in Plans or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the Site. OWNER shall not be responsible for any such materials brought to the Site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

B. Upon discovering any such material, CONTRACTOR shall immediately:

1. stop all Work in connection with such Hazardous Environmental Condition and in any area affected thereby (except in emergency as required by paragraph 6.18), and

2. notify OWNER and ENGINEER (and 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 Hazardous Environmental Condition or take corrective action, if any.

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C. CONTRACTOR shall not be required to resume Work in connection with such Hazardous Environmental Condition or in any such affected areas until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice:

1. specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or

2. specifying any special conditions under which such Work may be resumed safely.

D. If OWNER and CONTRACTOR cannot agree as to entitlement to, or the amount, or extent of an adjustment, if any, in Contract Price or Contract Terms as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a Claim therefor as provided in paragraph 11.01.

E. If after receipt of such special 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 such portion of the Work that is in connection with such condition, or in such affected area, to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to, or the amount, or extent of an adjustment, if any, in Contract Price or Contract Time as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 11.01. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with paragraph 7.01.

F. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses, damages and expenses arising out of or resulting from such condition per this paragraph 4.06, provided that:

1. 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, and

2. nothing in this paragraph 4.06 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

G. The provisions of paragraph 4.03 are not intended to apply to the presence of Constituents of Concern or Hazardous Environmental Conditions uncovered or revealed at the Site.

Article 5 Bonds and Insurance

5.01 Performance and Other Bonds

A. CONTRACTOR shall furnish performance and payment Bonds, on the form included in the Contract Documents, 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 at least until 1 year after the date when final payment becomes due, except as otherwise provided by Laws and Regulations or as specified in the Contract Documents or Bond. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions.

B. All Bonds shall be in the forms prescribed by the Contract Documents and be executed by such Sureties as

1. are licensed to conduct business in the state where the Project is located, and

2. 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 U.S. Department of Treasury, Financial Management Service, Surety Bond Branch.

C. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

D. If Surety on any Bond furnished by CONTRACTOR is declared as 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 clauses (1) and (2) of paragraph 5.01, CONTRACTOR shall within 5 days thereafter substitute another Bond and Surety, both of which shall be acceptable to OWNER.

5.02 Licensed Insurers and Sureties

A. 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.

5.03 Insurance

A. CONTRACTOR shall purchase and maintain during the term of the Project such insurance as will protect him, OWNER(s) and ENGINEER(s) from Claims arising out of the Work described in this Contract and performed by CONTRACTOR, Subcontractor(s) or Sub subcontractor(s) consisting of:

1. Workers' Compensation Insurance including Employer's Liability to cover employee injuries or disease compensable under the Workers' Compensation Statutes of the states in which Work is conducted under this Contract; disability benefit laws, if any; or Federal compensation acts such as U.S. Longshoremen or Harbor Workers', Maritime Employment, or Railroad Compensation Act(s), if applicable. Self-insurance plans approved by the regulatory authorities in the state in which Work on this Project is performed are acceptable.

2. An occurrence form Commercial General Liability policy to cover bodily injury to persons other than employees and for damage to tangible property, including loss of use thereof, plus appropriate endorsements to protect OWNER and ENGINEER against Claims, demands, and lawsuits from employees of CONTRACTOR and Subcontractors, including the following exposures:

   a. All premises and operations.

   b. Explosion, collapse and underground damage.

   c. CONTRACTOR's Protective coverage for independent contractors or Subcontractors employed by him.

d. Broad form blanket, contractual liability for the obligation assumed in the Indemnification or Hold Harmless agreement found in the General Conditions or Supplementary Conditions of this Contract.

e. Personal Injury Liability endorsement with no exclusions pertaining to employment.

f. Products and Completed Operations coverage. Coverage shall extend through the Contract guarantee period.

g. Broad form property damage.

h. Cross liability endorsement.

i. For design professional additional insureds, ISO Endorsement CG 20 32 04 13, "Additional Insured-Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

3. Comprehensive Automobile Liability policy to cover bodily injury and property damage arising out of the ownership, maintenance or use of any motor vehicle, including owned, non-owned and hired vehicles. Comprehensive General Liability and the Comprehensive Auto Liability shall be written by the same insurance carrier, though not necessarily in one policy.

4. CONTRACTOR shall purchase for OWNER an Owner's Protective Liability policy to protect OWNER, ENGINEER, their consultants, agents, employees and such public corporations in whose jurisdiction the Work is located for their liability for Work performed by the CONTRACTOR, the Subcontractor(s) or the Sub subcontractor(s) under this Contract.

5. When a limit of liability is identified in the Supplementary Conditions, CONTRACTOR shall purchase a Builder's Risk Installation Floater in a form acceptable to OWNER covering property of the Project for the full cost of replacement as of the time of any loss which shall include, as named insureds,

a. CONTRACTOR,

b. all Subcontractors,

c. all Sub subcontractors,

d. OWNER, and ENGINEER(s) or Architect(s), as their respective interests may prove to be at the time of loss, covering insurable property which is the subject of this Contract, whether in place, stored at the Site, stored elsewhere, or in transit at the risk of the insured(s).

Coverage shall be effected on an "All Risk" form including, but not limited to, the perils of fire, wind, vandalism, collapse, theft, flood and earthquake, with removal of passive design error exclusion. Except as may otherwise be required by OWNER, CONTRACTOR may arrange for such deductibles as CONTRACTOR deems to be within CONTRACTOR's ability to self-assume, but CONTRACTOR will be held solely responsible for the amount of such deductible and for any co-insurance penalties. Any insured loss shall be adjusted with OWNER and CONTRACTOR and paid to OWNER and CONTRACTOR as Trustee for the other insureds.

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6. Umbrella or Excess Liability

a. The CONTRACTOR is granted the option of arranging coverage under a single policy for the full limit required or by a combination of underlying policies with the balance provided by an Excess or Umbrella Liability policy equal to the total limit(s) requested. Umbrella or Excess policy wording shall be at least as broad as the primary or underlying policy(ies) and shall apply both to CONTRACTOR's General Liability and Automobile Liability Insurance and shall be written on an occurrence basis.

7. Railroad Protective Liability

a. Where any of the Work is within a railroad right-of-way or where a limit of liability is identified in the Supplementary Conditions, CONTRACTOR will provide coverage in the name of each railroad company having jurisdiction over rights of way across which Work under the Contract is to be performed. The form of policy and the limits of liability shall be determined by the railroad company(ies) involved. See the Supplementary Conditions for limits and coverage requested.

8. CONTRACTOR's Professional Liability Insurance

a. If CONTRACTOR will provide or furnish professional services under this Contract through a delegation of professional design services or otherwise, then CONTRACTOR shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against Claims arising out of performance of professional design or related services caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by CONTRACTOR itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

B. OWNER's responsibilities in respect of purchasing and maintaining insurance are set forth below:

1. OWNER shall assume responsibility for such boiler and machinery insurance as may be required or considered to be necessary by OWNER in the course of construction, testing or after completion.

a. OWNER shall assume responsibility for such insurance as will protect the OWNER against any loss of use of OWNER's property due to those perils insured pursuant to paragraph 1 above.

5.04 Limits of Liability

A. The required limits of liability for insurance coverages required in paragraphs 5.03 shall be not less than those specified in the Supplementary Conditions.

5.05 Notice of Cancellation or Intent Not to Renew

A. Policies will be endorsed to provide that at least 30 days written notice shall be given to OWNER and to ENGINEER of cancellation, intent not to renew, or material modification of the coverage.

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5.06 Evidence of Coverage

A. Prior to commencement of the Work, CONTRACTOR shall furnish to OWNER and ENGINEER, Certificates of Insurance in force on current Accord® Certificate of Insurance form. Other forms of Certificate are acceptable only if;

1. they include all of the items prescribed in the current Accord® Certificate of Insurance form, including agreement to cancellation provisions outlined in paragraph 5.05 above; and

2. they have approval of OWNER and ENGINEER.

B. Prior to the commencement of the Work, CONTRACTOR shall furnish to OWNER complete "originally signed" copies of the Owner's Protective Liability Policy. The number of copies shall be the same as the number of counterparts of the Agreement. OWNER reserves the right to request complete copies of other policies if deemed necessary to ascertain details of coverage not provided by the certificates. Such policy copies shall be "Originally Signed Copies," and so designated.

5.07 Qualification of Insurers

A. In order to determine financial strength and reputation of insurance carriers, all companies providing the coverages required shall be licensed or approved by the Insurance Bureau of the state in which the Project is located and shall have a financial rating not lower than XI and a policyholder's service rating no lower than B+ as listed in A.M. Best's Key Rating Guide, current edition. Companies with ratings lower than B+:XI will be acceptable only upon written consent of OWNER.

5.08 Damage Claims - Acknowledgment and Reports

A. CONTRACTOR shall furnish to OWNER an acknowledgment receipt from the insurance carrier for each damage claim against the Project. The receipt shall include the insurance carrier’s assigned claim number.

B. Upon request, CONTRACTOR or his insurance carrier shall also furnish to OWNER a status report on all damage claims. This report shall include inspections made, the disposition of claims, and what action has been taken towards settlement of each claim.

C. Failure of CONTRACTOR to comply with this paragraph 5.08 may result in the amount of such damage claims being withheld from CONTRACTOR’s monthly pay estimate. Such withholding shall be reimbursed in the monthly pay estimate following compliance with this paragraph.

5.09 Cost of Insurance

A. The unit cost of the insurance herein specified will not be a specific bid item, but the cost of such insurance will be included by the CONTRACTOR in the various prices bid.

5.10 Waiver of Rights

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.03 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER’s Consultants (and all other persons or entities identified in the Supplementary General Conditions to be listed as insureds or additional insureds in such policies) and will provide primary coverage for all losses and damages caused by the perils covered thereby. Such policies shall contain provisions to

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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.

B. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary General Conditions to be listed as insureds or additional insureds under such policies for loss 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.

5.11 Receipt and Application of Insurance Proceeds

A. Any insured loss under the policies of insurance required by paragraph 5.03.A.5 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. If no other special agreement is reached the damaged Work shall be repaired or replaced, the monies so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order, Field Oder or Work Change Directive.

B. OWNER as fiduciary shall have power to adjust and settle any loss under the policies required by paragraph 5.03.A.5 with the insurers unless one of the parties in interest shall object in writing within fifteen 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.

Article 6 Contractor's Responsibilities

6.01 Supervision and Superintendence

A. CONTRACTOR shall supervise 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 be responsible to see that the finished Work complies with the Contract Documents. However, if specific means, methods, techniques, sequences and procedures of construction are prescribed in the Plans or Specifications, CONTRACTOR shall be responsible to comply therewith, but may implement such prescribed Work in a manner of CONTRACTOR's choosing so long as the Work complies with the requirements of the Plans and Specifications.

B. At all times during the progress of the Work, CONTRACTOR shall assign and maintain a competent superintendent who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. Any superintendent or foreman who neglects to have Work done in accordance with the Plans and Specifications shall be removed from the Project. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

6.02 Labor and Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel in their various duties. CONTRACTOR shall at all times maintain good discipline and order at the Site. Except as otherwise required for the safety or protection of persons, the Work, property at the Site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the Site shall be performed during regular working hours (7:00 a.m. to 7:00 p.m.), and CONTRACTOR will not permit the performance of Work on Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

6.03 Services, Materials and Equipment

A. Unless otherwise specified in the Contract Documents, CONTRACTOR shall furnish 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 furnishing, performance, testing, start up and completion of the Work.

B. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Contract Documents 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 kind and quality of materials and equipment to be incorporated in the Work. The CONTRACTOR shall not use material in the Work until Shop Drawing or Submittals have been reviewed by the ENGINEER. All materials which do not meet the requirements of the Specifications at the time they are to be used will be rejected, and unless otherwise permitted by ENGINEER, shall be plainly marked and removed immediately from the Work.

C. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, Supplier or distributor, except as otherwise provided in the Contract Documents.

6.04 Substitutes and “Or-Equals”

Whenever an item of materials or equipment is specified or described in the Contract Documents for installation in the Work by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor; or means, methods, techniques, sequences and procedures of construction are prescribed in the Plans or Specifications; the specification or description is intended to establish the type, function and quality required or the means, methods, techniques, sequences and procedures of construction required. Unless the specification or description contains or is followed by words indicating that no like, equivalent or “or-equal” item or no substitution is permitted, other items of material or equipment or materials or equipment of other manufacturers, fabricators, suppliers or distributors; or other means, methods, techniques, sequences and procedures of construction may be accepted by ENGINEER under the following circumstances:

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1. "Or-Equal": 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 acceptance of proposed substitute items.

2. Substitute Items: 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 6.04.A; or a proposed means, methods, techniques, sequences and procedures of construction are different from what is prescribed in the Plans or Specifications, 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 or means, methods, techniques, sequences and/or procedures proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the ENGINEER will include the following, as supplemented in the Specifications, and as ENGINEER may decide is appropriate under the circumstances. Requests for review of substitute items of material and equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

C. If CONTRACTOR wishes to furnish or use a substitute, CONTRACTOR shall make written application to ENGINEER on the Substitution Request Form provided for acceptance thereof, certifying that the proposed substitute will:

1. perform adequately the functions and achieve the results called for by the general design,

2. be similar in substance to that specified,

3. and be suited to the same use and capable of performing the same function as that specified.

The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the proposed substitute for use in the Work will require a change in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute, and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.

D. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service shall be indicated. The application shall also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

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E. All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense. ENGINEER will be the sole judge of acceptability, and ENGINEER's determination shall be final and binding, may not be reversed through an appeal under any provisions of the Contract Documents, and no "or-equal" or substitute shall be ordered, installed or utilized without ENGINEER's prior written acceptance. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute which has been approved by ENGINEER.

F. ENGINEER will record time required by ENGINEER and ENGINEER's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's consultants for evaluating any proposed substitute and in making any changes in the Contract Documents resulting therefrom.

6.05 Concerning Subcontractors

A. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organizations, including those who are to furnish the principal items of materials or equipment, whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall furnish ENGINEER a complete list of any Subcontractor, Supplier or other person or organization furnishing principal items of material or equipment within 4 days of request. Failure to object to any Subcontractor, Supplier, other person or organization by OWNER or ENGINEER shall not constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

B. If OWNER or ENGINEER, after due investigation, has reasonable objection to any Subcontractor, Supplier, other person or organization proposed by CONTRACTOR after the Notice of Award, CONTRACTOR shall submit an acceptable substitute and the Contract Price shall be increased or decreased by the difference in cost occasioned by such substitution, and an appropriate Change Order shall be issued. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

C. The CONTRACTOR shall not award Work to Subcontractor(s), in excess of 50% of the Contract Price, without prior written approval of the OWNER.

CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors, Suppliers and of persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier of other person or organization any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any Subcontractor, Supplier or other person or organization. OWNER or ENGINEER may furnish to any Subcontractor, Supplier or other person or organization, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific Work done.

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D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

E. If the amount of the subcontract or the nature of the Work to be performed thereunder warrants, OWNER may require Subcontractor to furnish, for the benefit of OWNER and CONTRACTOR jointly, Bonds in an amount proportioned to the amount of his subcontract, and for the same purpose and under the same specifications as those of the general Contract. The Surety on the general Contract shall not be eligible to furnish such Subcontract Bonds.

F. 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 and additional insured on the property insurance provided in paragraph 5.03.A.5, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils 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. CONTRACTOR shall file a true copy of such agreement with OWNER.

6.06 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 Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall defend, indemnify and hold harmless OWNER and ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, costs, losses, damages and expenses arising out of or resulting from 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, and shall defend all such claims in connection with any alleged infringement of such rights.

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6.07 Permits and Licenses

A. 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, permit, review, 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. CONTRACTOR shall pay all charges of utility owners for connections to the Work.

6.08 Laws and Regulations

A. CONTRACTOR shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to furnishing and performance of the Work. Neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws, ordinances, rules, and Regulations.

B. If CONTRACTOR performs any Work that is contrary to such laws, ordinances, rules and regulations, CONTRACTOR shall bear all claims, costs, losses, damages and expenses caused by, arising out of, or resulting therefrom. However, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Plans are in accordance with such laws, ordinances, rules, and regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. OWNER or CONTRACTOR may give notice to the other party of any changes after the submission of CONTRACTOR's Bid (or after the date when CONTRACTOR became bound under a negotiated Contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount, or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice CONTRACTOR may submit a Change Proposal, or OWNER may initiate a Claim.

6.09 Taxes

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

6.10 Use of Premises

A. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project Site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights of way, permits and easements, and shall not unreasonably encumber the premises 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. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with any such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR's continuing obligations under paragraph 6.24 shall be applicable to any claim hereunder.

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6.11 Removal of Debris and Cleaning

A. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the Site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to their original condition all property not designated for alteration by the Contract Documents. If CONTRACTOR shall fail to keep the above noted areas cleaned of dust or debris resulting from CONTRACTOR's operations, CONTRACTOR shall be so notified in writing by ENGINEER. If within 24 hours after receipt of such notice CONTRACTOR shall fail to clean such areas satisfactorily, OWNER may have such other agency as he shall designate, perform the work and all costs of such cleaning shall be paid for by CONTRACTOR.

6.12 Loading Structures

A. 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.

6.13 Protection of Utilities

A. When it is possible for construction operations to endanger any public or private utility, conduit, or structure, CONTRACTOR shall notify the utility owner of this possibility, and safeguard and support such utilities, conduits, or structures. Where it is the policy of any utility owner to make its own repairs to damaged conduit or other structures, CONTRACTOR shall cooperate to the fullest extent with the utility, and he shall see that his operations interfere as little as possible with these operations, and CONTRACTOR shall assume the cost of any charge against OWNER therefor. In cases where existing Utilities or Utility service connections are encountered, CONTRACTOR shall perform his operations in such a manner that service will be uninterrupted, and the cost thereof shall be at CONTRACTOR's expense, unless otherwise provided.

6.14 Record Documents

A. CONTRACTOR shall maintain in a safe place at the Site 1 record copy of all Specifications, Plans, Addenda, Change Orders, Work Change Directives, and Field Orders, in good order and annotated to show all changes made during construction. These record documents together with all Samples and all Shop Drawings shall be available to ENGINEER for examination and shall be delivered to ENGINEER for OWNER upon completion of the Work.

6.15 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 Work Site or who may be affected by the Work,

2. all the Work and materials or equipment to be incorporated therein, whether in storage on or off the Site, and

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3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and Utilities and not designated for removal, relocation or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them 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, Utilities, and utility owners when prosecution of the Work may affect them.

C. CONTRACTOR shall restore, at his own expense, any public or private property damaged or injured in consequence of any act or omission on his part, or on the part of his employees or agents, to a condition equal or better than that existing before such injury or damage was done. If CONTRACTOR neglects to restore or make good such damages or injury, OWNER may, upon 48 hours' notice, proceed to restore or make good such damage or injury and to order the cost thereof deducted from any monies that are due, or may become due, to CONTRACTOR for this Work.

D. CONTRACTOR's duties and responsibilities for the safety and 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 14.11 that the Work is Acceptable.

E. CONTRACTOR shall comply with the applicable requirements of OWNER's safety programs, if any. Any OWNER's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

F. CONTRACTOR shall inform OWNER and ENGINEER of the specific requirements of CONTRACTOR's safety program with which OWNER's and ENGINEER's employees and representatives must comply while at the Site.

G. CONTRACTOR's duties and responsibilities for safety and protection will continue until all the Work is completed, ENGINEER has issued a written notice to OWNER and CONTRACTOR in accordance with paragraph 14.11 that the Work is acceptable, and CONTRACTOR has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

H. CONTRACTOR's duties and responsibilities for safety and protection will resume whenever CONTRACTOR or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

6.16 Safety Representative

A. CONTRACTOR shall be responsible to designate for itself and its employees, and its Subcontractors 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.

6.17 Hazard Communication Program

A. CONTRACTOR shall be responsible for coordinating any exchange of 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 applicable Laws or Regulations.

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6.18 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, 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. 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 to document the consequences of such action.

6.19 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings required by the Contract Documents to ENGINEER for review, in accordance with an accepted schedule. All Submittals will be identified as ENGINEER may require and in the number of copies specified in the Specifications. The 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 materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.21.

B. CONTRACTOR shall also submit all samples required by the Contract Documents to ENGINEER for review in accordance with an accepted schedule. Each Sample will be identified clearly 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 6.21. The number of each sample to be submitted will be as specified in the Specifications.

6.20 Submittal Procedures

A. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

1. all field measurements, quantities, dimension, specified performance criteria, installation requirements, manufacturer's recommendations, material, catalog numbers and similar information with respect thereto,
2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and
3. all information relative to CONTRACTOR's responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

B. CONTRACTOR shall 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.

C. Each Submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to review and approval of that Submittal.

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D. At the time of each submission, CONTRACTOR shall in writing call ENGINEER's attention to any deviations that the Shop Drawings or Samples 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 of each such variation.

E. 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. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous Submittals.

F. CONTRACTOR shall furnish required Submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. ENGINEER will record ENGINEER's time for reviewing a fourth or subsequent submittal of Shop Drawings, sample, or other item requiring approval, and CONTRACTOR shall be responsible for ENGINEER's charges to OWNER for such time. OWNER may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges.

G. If CONTRACTOR requests a change of a previously approved Submittal item, CONTRACTOR shall be responsible for ENGINEER's charges to OWNER for its review time, and OWNER may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges, unless the need for such change is beyond the control of CONTRACTOR.

6.21 Engineer's Review

A. ENGINEER will review Shop Drawings and Samples in accordance with the Schedule of Submittals accepted by ENGINEER as required by paragraph 2.05. ENGINEER's review shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions.

B. ENGINEER's review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variations from the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to such variation at the time of submission and ENGINEER has given written concurrence to the specific variation, nor shall any concurrence by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings. ENGINEER's review shall not relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.20.

C. Where a Shop Drawing or sample is required by the Contract Documents or the Schedule of Submittals accepted by ENGINEER per paragraph 2.05, no related Work shall be commenced until the Submittal has been reviewed by the ENGINEER.

6.22 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 CONTRACTOR and OWNER may otherwise agree in writing.

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6.23 Contractor's General Warranty and Guarantee

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or their employees, agents, or representatives, or any person or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

B. 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 of any progress or final payment by ENGINEER;

3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

4. use or occupancy of any part of the Work by OWNER;

5. any acceptance by OWNER or failure to do so;

6. any review or approval of a Shop Drawing or Sample Submittal or the issuance of a notice of acceptability by ENGINEER per paragraph 14.11;

7. any inspection, test or approval by others; or

8. any correction of defective Work by OWNER.

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

D. CONTRACTOR shall assign to OWNER all warranties extended to CONTRACTOR by material Suppliers and Subcontractors. If an assignment of warranty requires the material Supplier or Subcontractor to consent to same, then CONTRACTOR shall secure the material Supplier's or Subcontractor's consent to assign said warranties to OWNER.

E. The warranties provided in this section shall be in addition to, and not in limitation of, any other warranty or remedy required by law.

6.24 Indemnification

A. To the fullest extent permitted by law, CONTRACTOR shall indemnify, defend (with counsel acceptable to OWNER) and hold harmless OWNER, ENGINEER and any additional indemnitees identified in the Supplementary Conditions and their respective directors, officers, members, partners, affiliates, employees, agents and successors, from and against any and all liabilities, claims, causes of action, lawsuits, liens, injuries, damages, losses and expenses (collectively "Demands") to the extent caused by, arising out of, resulting from or occurring in connection with:

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1. CONTRACTOR's breach of, or failure to comply with, the Agreement, the Contract Documents, or any other contract that it enters into regarding the Work, including any default in performance; or

2. Personal injury or death to any person (including, but not limited to, CONTRACTOR, CONTRACTOR's employees, Subcontractors, Subcontractors' employees, and material Suppliers) or injury to or destruction of property (including claims for loss of use) caused by, arising out of, resulting from, or in any way connected with

   a. the Work,

   b. any activity associated with the Work, or

   c. the operations or acts of commission or omission of CONTRACTOR, CONTRACTOR's employees, Subcontractors, Subcontractors' employees, material suppliers, or anyone for whom CONTRACTOR is legally liable in the performance of Work, whether arising before or after completion of the Work.

B. To the extent caused by, arising out of, resulting from, or occurring in connection with the provisions of the above paragraph 6.24.A, CONTRACTOR's indemnity obligations under this Agreement shall include, but are not limited to:

1. Indemnity for all damages and judgment interest, all costs and fees, including, but not limited to, all defense costs, expenses and actual attorneys' fees, and all settlement payments relating to, arising out of, resulting from or in any way connected with any demand requiring indemnity by this Agreement;

2. All expenses, including but not limited to, costs, expenses and actual attorneys' fees, incurred in securing and enforcing indemnity from CONTRACTOR if CONTRACTOR fails or refuses promptly to fulfill any of the indemnity obligations under this Agreement;

3. All indemnification obligations imposed upon OWNER or ENGINEER, or both, arising out of or in connection with the Work; and

4. Indemnification for any penalties and/or fines arising or resulting from CONTRACTOR's or any SUBCONTRACTOR's failure to comply with laws and/or regulations applicable to its/their Work.

C. Contractor's duty to indemnify under Subpart A.2. of Article 6.24 is limited to the negligence of Contractor, Contractor's employees, Subcontractors, Subcontractor's employees, material Suppliers, or anyone for whom Contractor is legally liable in the performance of the Work, whether arising before or after the completion of the Work.

D. The indemnification rights under this Agreement shall not be construed to negate, abridge, or otherwise reduce any other right or obligations of indemnity which would otherwise exist.

E. OWNER, at its option, may select counsel to defend any demand brought against it without impairing any obligation of the CONTRACTOR to provide indemnification.

F. The indemnification provisions under this Agreement shall survive the completion or termination of this Agreement.

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G. In the case of claims by any employee of CONTRACTOR, anyone directly or indirectly employed by CONTRACTOR, or anyone for whose acts CONTRACTOR may be liable, the indemnification obligations under this Agreement 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 under workers' compensation acts. Such obligations shall not be construed to negate, abridge or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Agreement.

H. Indemnification, additional insured and hold harmless obligations of CONTRACTOR and Subcontractor under the Contract Documents shall survive the termination of this Agreement.

I. CONTRACTOR and Subcontractors will compel their insurance company to waive subrogation against OWNER, all ENGINEERS and all CONTRACTORS and Subcontractors identified as additional insureds in the Contract Documents, including any municipal entity now existing or newly created during the term of the Contract Documents.

6.25 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 or procedures. CONTRACTOR shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, equipment, structures, means, methods, techniques or sequences of construction 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 professional properly licensed in the state in which the project is located, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other Submittals prepared by such professional. Shop Drawings and other Submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to ENGINEER.

C. OWNER and ENGINEER shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals.

D. Pursuant to this paragraph 6.25, ENGINEER's review or 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 or approval of Shop Drawings and other Submittals (except design calculations and design drawings) will be only for the purpose stated in paragraph 6.21.

E. CONTRACTOR shall not be responsible for the adequacy of the performance or design criteria specified by OWNER or ENGINEER.

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Article 7 Work by Others

7.01 Related Work at Site

A. In addition to and apart from the Work under the Contract Documents, the OWNER may perform other work at or adjacent to the Site. Such other work may be performed by OWNER's employees, or through contracts between the OWNER and third parties. OWNER may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If any part of CONTRACTOR's Work depends on proper execution or results upon the work of any such other contractor or utility owner, CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable, or unsuitable for such proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report shall constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in the other work.

C. CONTRACTOR shall afford each contractor who is party to such a direct contract, and each utility owner, (and OWNER, if OWNER is performing the additional work with OWNER's employees), proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of CONTRACTOR's Work that may be required to make its several parts come together properly and 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.

D. If the performance of additional work by other contractors, utility owner, or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR, or requires an extension of the Contract Time, CONTRACTOR may make a Claim therefor as provided in paragraph 11.01. Claims for delay or inconveniences due to operations of such other parties for work noted in the Contract Documents will not be allowed.

Article 8 Owner's Responsibilities

8.01 Communication 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 against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 Furnishing Data

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

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8.04 Pay When Due

A. OWNER shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.05 and 14.11.

8.05 Lands and Easements; Reports and Tests

A. OWNER's duties in respect to 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 investigations and tests of subsurface and latent physical conditions at the Site.

8.06 Change Orders

A. In connection with OWNER's rights to request changes in the Work in accordance with Article 10, OWNER (especially in certain instances as provided in paragraph 10.01) is obligated to execute Change Orders.

8.07 Inspections, Tests, and Approvals

A. OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.02.

8.08 Limitation on Owner's Responsibility

A. 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 furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.09 Undisclosed Hazardous Materials

A. OWNER's responsibility in respect of undisclosed Constituents of Concern uncovered or revealed at the Site is set forth in paragraph 4.06.

8.10 Owner'S Designated Representative

A. OWNER shall designate a person to act as its representatives during the performance of the Work. OWNER's designated representative will attend meetings and perform on behalf of OWNER all obligations required of OWNER under the provisions of the Contract Documents.

Article 9 Engineer's Status During Construction

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 shall be as set forth in the Contract Documents.

9.02 Visits to Site

A. ENGINEER may make visits to the Site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work, and to determine solely for the benefit of OWNER, in general, if the Work is proceeding in accordance with the technical requirements of the Contract Documents. It will not be the responsibility of ENGINEER to make exhaustive or continuous on Site inspections to check the quality or quantity of the Work.

9.03 Resident Project Representative

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more continuous observation of the Work. A Resident Project Representative will act as directed by and under the supervision of ENGINEER and will confer with ENGINEER regarding his actions. Resident Project Representative's dealings in matters pertaining to the on Site Work shall in general be only with ENGINEER and CONTRACTOR, and dealings with Subcontractors shall only be through or with the full knowledge of CONTRACTOR. The Resident Project Representative's duties and responsibilities include:

1. Schedules

   a. Review the Progress Schedule, Schedule of Submittals and Schedule of Values prepared by CONTRACTOR.

2. Conferences

   a. Arrange a schedule of progress meetings and other job conferences as required in consultation with ENGINEER and OWNER, and notify those expected to attend in advance.

3. Liaison

   a. Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist him in understanding the intent of the technical aspects of the Contract Documents. Assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's on Site operations.

4. Shop Drawings and Samples

   a. Advise ENGINEER and CONTRACTOR, or CONTRACTOR's superintendent, immediately of the commencement of any Work requiring a Shop Drawing or Sample submission if the submission was identified on the schedule and has not been reviewed by ENGINEER.

5. Review of Work, Rejection of Defective Work, Inspections, and Tests:

   a. Conduct on Site observations of the Work and report to ENGINEER whenever Resident Project Representative believes that technical aspects of any executed Work is unsatisfactory, faulty or defective or does not meet the requirements of any inspections, tests or approval required to be made or has been damaged prior to final payment; and advise ENGINEER when Resident Project Representative believes that any partially completed portion of the Work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

   b. Observe, record and report to ENGINEER appropriate details relative to test procedures and startups.

   c. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections and report to ENGINEER.

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6. Modifications

   a. Consider CONTRACTOR's suggestions for modifications in Plans or Specifications and report them to ENGINEER.

7. Reports

   a. Prepare periodic reports as required of progress of the Work and CONTRACTOR's compliance with the approved Progress Schedule and Schedule of Submittals.

8. Completion

   a. Verify that all items on final list of items requiring completion or correction have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

9. Exceptions

   a. Resident Project Representative:

      (1) Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.

      (2) Shall not approve or accept any portion of the completed Work.

      (3) Shall not undertake any of the responsibilities of CONTRACTOR, Subcontractors or CONTRACTOR's superintendent, or expedite the Work.

      (4) Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.

      (5) Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.

      (6) Shall not advise on or issue directions regarding CONTRACTOR's failure to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

9.04 Clarifications and Interpretations

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

9.05 Authorized Variations in Work - Field Order

A. ENGINEER may authorize minor adjustments in the Work to avoid obstructions or interferences which do not involve an adjustment in the Contract Price or the Contract Time, and which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change 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 request for a Change Proposal may be made therefore as provided in paragraph 10.06 or a Claim may be submitted as set forth in paragraph 11.01.

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9.06 Rejecting Defective Work

A. ENGINEER will have authority to disapprove or reject completed portions of the Work which ENGINEER believes to be defective and 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.

9.07 Shop Drawings, Change Orders, and Payments

A. ENGINEER's responsibility for Shop Drawings and samples are set forth in paragraphs 6.19 through 6.21 inclusive.

B. ENGINEER's responsibilities as to Change Orders are set forth in Articles 10, 11, and 12.

C. ENGINEER's responsibilities in respect of Applications for Payment are set forth in Article 14.

9.08 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 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 10.06.

9.09 Decisions on Disagreements, Claims

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work performed thereunder. Claims, disputes and other matters relating to the acceptability of the Work, or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work, shall be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph 9.09.

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 11.01.

C. ENGINEER's written decision on the issue referred will be final and binding on OWNER and CONTRACTOR, subject to the provisions of paragraph 11.01.

D. In this capacity 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.

9.10 Limitations on Engineer's Responsibilities

A. Neither ENGINEER's authority to act under this Article 9 or elsewhere in the Contract Documents, nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority, shall give rise to any duty or responsibility of ENGINEER to OWNER or CONTRACTOR, any Subcontractor, any manufacturer, fabricator, Supplier, distributor, surety, or any other person, employee, or agent of any of them.

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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 furnishing or performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents. These limitations on authority and responsibility shall also apply to ENGINEER's Consultant's, Resident Project Representative and assistants.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER will not be responsible to CONTRACTOR or any Subcontractor, or Supplier, or to their agents or employees for injuries, damages, claims, losses, or expenses (including attorney's fees) of whatsoever kind resulting from or caused by any act or omission of ENGINEER in preparation for, arising from, relating to, or concerning the Project. Such acts or omissions include, but are not limited to, ENGINEER's negligence, tortuous conduct, errors, omissions, strict liability, breach of contract, or breach of warranty. ENGINEER makes no representations to CONTRACTOR, Subcontractors, Suppliers or their agents or employees regarding or respecting any work performed by ENGINEER in preparation for, arising from, relating to, or concerning the Project.

E. Neither CONTRACTOR, its agents or employees, nor any Subcontractors or Suppliers or their agents or employees, are intended beneficiaries of ENGINEER's agreement with OWNER, nor are such parties intended beneficiaries of ENGINEER's duties or responsibilities arising therefrom. ENGINEER disclaims all duties to CONTRACTOR, Subcontractors, Suppliers or their agents or employees arising from, relating to, or concerning ENGINEER's involvement in the Project. OWNER and CONTRACTOR further agree to notify all CONTRACTOR's, Subcontractors or Suppliers of this disclaimer of ENGINEER's liability and require them to abide by this disclaimer.

Article 10 Amending the Contract Documents; Changes in the Work

10.01 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. Change Orders:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. OWNER and CONTRACTOR may amend those terms and conditions of the Contract Documents that do not involve;

(1) the performance or acceptability of the Work,

(2) the design (as set forth in the Drawings, Specifications, or otherwise), or

(3) other engineering or technical matters, without the recommendation of ENGINEER. Such an amendment shall be set forth in a Change Order.

2. Work Change Directives.

a. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including paragraph 10.04 regarding change of Contract Price.

b. CONTRACTOR must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the issuance of the Work Change Directive.

c. OWNER must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. Field Orders.

a. ENGINEER may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on OWNER and CONTRACTOR, which shall perform the Work involved promptly.

b. If CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, CONTRACTOR shall submit a Change Proposal as provided herein.

10.02 Owner-Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by ENGINEER's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if OWNER and CONTRACTOR have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive.

B. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph 10.02 shall obligate CONTRACTOR to undertake work that CONTRACTOR reasonably concludes cannot be performed in a manner consistent with CONTRACTOR's safety obligations under the Contract Documents or Laws and Regulations.

10.03 Unauthorized Changes in the Work

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in paragraph 6.18 or in the case of uncovering Work as provided in paragraph 13.03.

10.04 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of paragraph 10.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of paragraph 11.01.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by Unit Prices contained in the Contract Documents, then by application of such Unit Prices to the quantities of the items involved (subject to the provisions of paragraph 12.03); or

2. where the Work involved is not covered by Unit Prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.04.C.2); or

3. where the Work involved is not covered by Unit Prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in paragraph 12.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 10.04.C).

C. CONTRACTOR's Fee: When applicable, the CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

   a. for costs incurred under paragraph 12.01.B.1 and 12.01.B.2, the CONTRACTOR's fee shall be 15 percent;

   b. for costs incurred under paragraph 12.01.B.3, the CONTRACTOR's fee shall be five percent;

   c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 10.04.C.2.a and 10.04.C.2.b is that the CONTRACTOR's fee shall be based on:

      (1) a fee of 15 percent of the costs incurred under paragraphs 12.01.B.1 and 12.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and

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(2) with respect to CONTRACTOR itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor;

provided, however, that for any such subcontracted work the maximum total fee to be paid by OWNER shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

d. no fee shall be payable on the basis of costs itemized under paragraphs 12.01.B.4, 12.01.B.5, and 12.01.C;

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to 5 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 10.04.C.2.a through 10.04.C.2.e, inclusive.

10.05 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of paragraph 10.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of paragraph 11.01.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in paragraph 12.04, concerning delays in CONTRACTOR's progress.

10.06 Change Proposals

A. CONTRACTOR shall submit a Change Proposal to ENGINEER to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by ENGINEER concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seeking other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only 1 issue, or a set of closely related issues.

1. Procedures. CONTRACTOR shall submit each Change Proposal to ENGINEER promptly (but in no event later than 5 days) after the start of the event giving rise thereto, or after such initial decision. CONTRACTOR shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any) to ENGINEER and OWNER within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which CONTRACTOR believes it is entitled as a result of said event. ENGINEER will advise OWNER regarding the

Change Proposal and consider any comments or response from OWNER regarding the Change Proposal.

2. ENGINEER's Action. ENGINEER will review each Change Proposal and, within 30 days after receipt of the CONTRACTOR's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to OWNER and CONTRACTOR. If ENGINEER does not take action on the Change Proposal within 30 days, then either OWNER or CONTRACTOR may at any time thereafter submit a letter to the other party indicating that as a result of the ENGINEER's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under paragraph 11.01.

3. Binding Decision. ENGINEER's decision will be final and binding upon OWNER and CONTRACTOR, unless OWNER or CONTRACTOR appeals the decision by filing a Claim under paragraph 11.01.

B. Resolution of Certain Change Proposals: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then ENGINEER will notify the parties that the ENGINEER is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and CONTRACTOR may choose to seek resolution under the terms of paragraph 11.01.

10.07 Execution of Change Orders

A. OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the Parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an OWNER set-off, unless CONTRACTOR has duly contested such set-off;

3. changes in the Work which are:

a. ordered by OWNER pursuant to paragraph 10.02,

b. required because of OWNER's acceptance of defective Work under paragraph 13.08 or OWNER's correction of defective Work under paragraph 13.09, or

c. agreed to by the parties, subject to the need for ENGINEER's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under paragraph 10.06, or Article 16.

B. If OWNER or CONTRACTOR refuses to execute a Change Order that is required to be executed under the terms of this paragraph 10.07, it shall be deemed to be of full force and effect, as if fully executed.

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10.08 Notification to Surety

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

Article 11 Claims

11.01 Claims

A. Claims Process: The following disputes between OWNER and CONTRACTOR shall be submitted to the Claims process set forth in this Article:

1. Appeals by OWNER or CONTRACTOR of ENGINEER's decisions regarding Change Proposals;

2. OWNER demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that ENGINEER has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. Submittal of Claim: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 10 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the ENGINEER, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by CONTRACTOR seeking an increase in the Contract Times or Contract Price, or both, CONTRACTOR shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of CONTRACTOR's knowledge and belief the amount of time or money requested accurately reflects the full amount to which CONTRACTOR is entitled.

C. Review and Resolution: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to ENGINEER.

D. Mediation:

1. At any time after initiation of a Claim, OWNER and CONTRACTOR may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If OWNER and CONTRACTOR agree to mediation, then after 60 days from such agreement, either OWNER or CONTRACTOR may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. OWNER and CONTRACTOR shall each pay one-half of the mediator's fees and costs.

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E. Partial Approval: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 16 for final resolution of disputes.

F. Denial of Claim: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either OWNER or CONTRACTOR may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 16 for final resolution of disputes.

G. Final and Binding Results: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

Article 12 Cost of the Work; Allowances; Unit Price Work

12.01 Cost of Work

A. Purposes for Determination of Cost of the Work: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this paragraph 12.01 are used to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, CONTRACTOR is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. Costs Included: Except as otherwise may be agreed to in writing by OWNER, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in paragraph 12.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

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2. Costs 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 12.01.

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. 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.

   b. 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.

      (1) The rental rate established for each piece of CONTRACTOR owned equipment, including appurtenances and attachments to the equipment, used will be determined by use of the Rental Rate Blue Book for Construction Equipment, Volume 1, 2 or 3, as applicable; the edition which is current at the time the Work was started will apply. The established rental rate will be equal to the "Monthly" rate divided by 176; modified by the rate adjustment factor and the applicable map adjustment factor, plus the "Estimated Operating Costs per Hour."

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(2) For equipment not listed in the Rental Rate Blue Book, Volume 1, 2 or 3, the rental rate will be determined by using the rate listed for a similar piece of equipment or by proportioning a rate listed so that the capacity, size, horsepower, and age are properly considered.

(3) For equipment for which there are no comparables in the Rental Rate Blue Book, Volume 1, 2 or 3, the monthly rate shall be reasonable, but not more than 5 percent of the current list price, or invoice, of the equipment. The base hourly rate shall then be determined by dividing the monthly rate by 176 to which 20 percent will be added to the sum which will account for adjustments and operating costs.

c. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, as imposed by laws and regulations.

d. 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.

e. 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 5.03), 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

f. The cost of utilities, fuel, and sanitary facilities at the Site.

g. The costs of premiums for all bonds and insurance that CONTRACTOR is required by the Contract Documents to purchase and maintain.

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

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, 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 12.01.B.1 or specifically covered by paragraph 12.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the CONTRACTOR's fee.

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2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 12.01.B.

D. CONTRACTOR's Fee: When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 10.04.C.

E. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 12, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER on a daily basis, an itemized cost breakdown together with supporting data.

12.02 Allowances

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

B. Cash Allowances: CONTRACTOR agrees that:

1. the cash allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling of the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance: CONTRACTOR agrees that a contingency allowance, if any, is for the sole use of OWNER to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

12.03 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 Proposal.

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B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to CONTRACTOR for Unit Price Work will be based on actual quantities.

C. Each Unit Price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

D. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of the following paragraph 12.03.E.

E. Within 30 days of ENGINEER's written decision under the preceding paragraph 12.03.D, CONTRACTOR may submit a Change Proposal, or OWNER may file a Claim, seeking and adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimate quantity of such item indicated in the Proposal (in no event will any change in quantities of less than 25% be considered a material or significant change from the estimated quantities); and

2. there is no corresponding adjustment with respect to any other item of Work.

12.04 Delays in Contractor's Progress

A. If OWNER, ENGINEER, or anyone for whom OWNER is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then CONTRACTOR shall be entitled to request an equitable adjustment in the Contract Times and Contract Price. However, CONTRACTOR's entitlement to an adjustment of the Contract Times or Contract Price is expressly conditioned on such adjustment being essential to CONTRACTOR's ability to complete the Work within the Contract Times.

B. CONTRACTOR shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of CONTRACTOR. Delay, disruption, and interference attributable to and within the control of a SUBCONTRACTOR or Supplier shall be deemed to be within the control of CONTRACTOR.

C. If CONTRACTOR's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault and beyond the control of OWNER, CONTRACTOR, and those for which they are responsible, then CONTRACTOR shall be entitled to an equitable adjustment in Contract Times. CONTRACTOR's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to CONTRACTOR's ability to complete the Work within the Contract Times. Such an adjustment shall be CONTRACTOR's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include only the following:

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1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. acts or failures to act of utility owners (other than those performing other works at or adjacent to the Site by arrangement with the OWNER, as specified in paragraph 7.01); and

3. acts of war or terrorism.

D. CONTRACTOR's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. CONTRACTOR's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.

2. CONTRACTOR shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of CONTRACTOR. Such a concurrent delay by CONTRACTOR shall not preclude an adjustment of Contract Times to which CONTRACTOR is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 10.

E. Each CONTRACTOR request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;

2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;

3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;

4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and

5. The impact on Contract Price, in accordance with the provisions of Paragraph 10.04.

CONTRACTOR shall also furnish such additional supporting documentation as OWNER or ENGINEER may require including, where appropriate, a revised Progress Schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by paragraphs 4.03 and 4.06.

G. Paragraph 7.01 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

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H. CONTRACTOR shall not be entitled to any adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of CONTRACTOR.

I. CONTRACTOR must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 5 days of the commencement of the delaying, disrupting, or interfering event.

J. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Time (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety or employee or any agent of them, for 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 resulting from:

1. delays caused by or within the control of CONTRACTOR (or Subcontractor or Supplier);

2. delays beyond the control of both OWNER and CONTRACTOR, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts of neglect by utility owners or other contractors performing other work;

K. Nor shall OWNER or ENGINEER or each of them be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

L. Nothing in this paragraph 12.04 bars a change in Contract Price to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible. Except for an adjustment to the Contract Times and Contract Price, the CONTRACTOR shall not be entitled to and hereby waives any and all damages that it may suffer by reason of such delay or for any Act of God, including but not limited lost profits, overhead, and other consequential damages.

Article 13 Tests and Inspection; Correction, Removal or Acceptance of Defective Work

13.01 Access to Work

A. OWNER, ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. CONTRACTOR shall provide proper and safe conditions for such access and advise OWNER and ENGINEER of CONTRACTOR's Site safety procedures and programs so that OWNER and ENGINEER may comply therewith as applicable.

13.02 Tests and Inspections

A. CONTRACTOR shall give ENGINEER and testing agency at least 24-hour notice, unless otherwise specified, 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.

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B. If any Law and Regulation, code, or order of any public body having jurisdiction requires any Work or part thereof to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval.

C. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER's or ENGINEER's acceptance of a manufacturer, fabricator, Supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

D. The cost of all other inspections, tests and approvals required by the Contract Documents shall be paid by OWNER unless otherwise specified.

E. All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR or by ENGINEER if so specified.

F. Cost of materials to be used in inspection and transportation costs shall be paid for by the CONTRACTOR.

G. Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from his obligations to perform the Work in accordance with the Contract Documents.

13.03 Uncovering Work

A. If any Work that is to be tested, inspected or approved is covered without written concurrence of ENGINEER, or contrary to the written request of ENGINEER, it shall, if requested by ENGINEER, be uncovered by CONTRACTOR for ENGINEER's observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely written notice of his intention to cover such Work and ENGINEER has not acted with reasonable promptness in response to such notice.

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. Except as otherwise specified in paragraph 13.04, the cost of Work shall be paid for as follows:

1. If it is found that such Work is defective, CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals) and an appropriate deductive Change Order shall be issued. If the parties are unable to agree as to the amount or extent of any change in Contract Price or Contract Time, OWNER may make a Claim as provided in paragraph 11.01.

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2. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction. If the parties are unable to agree as to the amount or extent of any change in Contract Price or Contract Time, CONTRACTOR may make a Claim as provided in paragraph 11.01.

13.04 Defective Work

A. CONTRACTOR's Obligation: It is CONTRACTOR's obligation to assure that the Work is not defective.

B. ENGINEER's Authority: ENGINEER has the authority to determine whether Work is defective, and to reject defective Work.

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 furnish or 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, 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. If required by ENGINEER or OWNER, CONTRACTOR shall promptly either correct all defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by ENGINEER, remove it from the Site and replace it with non-defective Work. CONTRACTOR shall pay all claims, costs, losses, damages and expenses caused by or resulting from such correction or removal (including, but not limited to all costs of repair or replacement of work of others) and shall take no action that would void or otherwise impair OWNER's special warranty or guarantee, if any, on such Work.

13.07 Guarantee Period

A. If within 1 year after the date of Substantial Completion (or such longer period of time as may be prescribed by Laws or Regulations or 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, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions:

1. repair defective land or areas;
2. correct such defective Work;
3. if the defective Work has been rejected by OWNER, remove it from the Site and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work or the work of others or other land or areas resulting therefrom.

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B. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses, damages and expenses caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement or work of others) shall be paid by CONTRACTOR.

C. Repair or replacements made under the guarantee shall bear an additional 1 year guarantee dated from the acceptance of repair or replacement.

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, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses, damages and expenses attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness). In such case, if acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate reduction in the Contract Price. If the acceptance occurs after such recommendation, an appropriate amount shall 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, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the Progress Schedule), OWNER may, after 48 hours' written notice to CONTRACTOR and his Surety without prejudice to any other remedy he may have, correct and remedy any such deficiency.

B. In exercising his rights and remedies under this paragraph 13.09, OWNER shall proceed expeditiously. To the extent necessary to complete corrective and 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's consultants such access to the Site as may be necessary to enable OWNER to exercise his rights and remedies under this paragraph 13.09.

C. All claims, costs, losses, damages and expenses incurred or sustained by OWNER in exercising such rights and remedies shall be charged against CONTRACTOR and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. OWNER shall be entitled to an appropriate reduction in the Contract Price equivalent to such claims, costs, losses, damages and expenses including 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 Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights under this Article 13.

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Article 14 Payments to Contractor and Completion

14.01 Schedules

A. At least 10 days prior to submitting the first Application for Payment, CONTRACTOR shall submit to ENGINEER a final Schedule of Submittals, and, where applicable, a Schedule of Values for the Work. These schedules shall be satisfactory in form and substance to ENGINEER as provided in Article 2.

B. The Schedule of Values shall include quantities and unit prices aggregating the Contract Price and shall subdivide the Work into component parts. Each unit cost so established shall include its proportionate share of CONTRACTOR's general operating charges such as profit, overhead, supervision, insurance, bond premiums, interest, equipment cost, depreciation and rental, contingencies, expendable tools, equipment and supplies. The total cost of the items and quantities CONTRACTOR lists in the Schedule of Values shall equal the total Contract Price established in the Proposal.

C. The Schedule of Values shall include a complete set of detailed work sheets on bid take off and bid summary covering estimated general conditions expense (field overhead), general overhead, profit mark ups and revisions leading to the final bid amount.

D. When the Schedule of Values is approved by the ENGINEER, it shall become part of the Agreement and shall be used as the basis for CONTRACTOR progress payments.

E. Progress payments based upon Unit Price Work will be based upon the number of units completed.

14.02 Application for Progress Payment

A. At least 20 days before each Application for Payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment, Contractor's Declaration, Payment Schedule, and updated Progress Schedules indicating the anticipated completion dates of the various stages of the Work and estimated payments during the next 3 months. Contractor's Application for Payment shall be filled out on the form provided in the Contract Documents and signed by CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents and as ENGINEER or OWNER may reasonably require. The Payment Schedule shall be on the form provided in the Contract Documents or in a format acceptable to the ENGINEER or OWNER. On the second and all subsequent payments, partial Waivers of Lien and Sworn Statement shall be required for all Work completed and paid for on previous certificates.

B. 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 such data, satisfactory to OWNER, as will establish OWNER's title to the material and equipment and protect OWNER's interest therein, including applicable insurance. A receipted vendor's invoice showing the quantities of materials and the amounts paid will be required and shall accompany the Application for Payment.

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C. Retainage with respect to progress payments will be in accordance with paragraph 14.03, and it will be retained until after completion of the entire Work and its final acceptance. When the amount to be retained is reduced to less than 10 percent, CONTRACTOR shall file with OWNER the written consent of the Surety to such reduction and shall furnish an affidavit that all CONTRACTOR's indebtedness by reason of the Contract has been paid.

14.03 Retainage

A. On Contracts with a dollar value of $30,000 and greater or on Contracts that provide for more than 3 progress payments, progress payments and retainage shall be governed by the provisions of any statutes, rules or regulations regarding retention and these are incorporated herein by reference and made a part of this Contract.

B. If there are no statutes, rules, or regulations applicable to retention, retainage shall be 10%, or such an amount as OWNER deems necessary.

14.04 Review of Applications for Progress Payment

A. ENGINEER will, within 10 days after receipt of each Contractor's Application for Payment and Payment Schedule, including each resubmittal, either indicate in writing a recommendation of payment and present an Engineer's Certificate for Payment to OWNER, or may 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.

B. ENGINEER's recommendation of any payment requested in CONTRACTOR's Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's review of the Contractor's Application for Payment and Certificate for Payment and the accompanying data and schedules, as an experienced and qualified design professional that to the best of ENGINEER's knowledge, information and belief;

1. the Work has progressed to the point indicated;
2. the quality of the Work is in accordance with the technical aspects of the Contract Documents subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for any Unit Price Work under paragraph 12.03, and any qualifications stated in the recommendation; and
3. 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.

C. However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that:

1. exhaustive or continuous on-Site inspections have been made to check the quality or the quantity of the Work; or
2. involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract; or
3. 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.

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D. Neither ENGINEER's review of CONTRACTOR's Work for the purpose of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER:

1. to supervise, direct or control the Work;

2. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

3. for the failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of Work;

4. for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents;

5. to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price;

6. to determine that title to any Work, materials, or equipment has passed to OWNER free and clear of Liens.

E. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make such representations as stated above to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

1. the Work is defective, or completed Work has been damaged requiring correction or replacement;

2. the Contract Price has been reduced because of Change Orders;

3. OWNER has been required to correct defective Work in accordance with paragraph 1309, or has accepted defective Work in accordance with paragraph 13.08;

4. OWNER has been required to remove or remediate a Hazardous Environmental Condition for which CONTRACTOR is responsible;

5. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.

14.05 Payment Becomes Due

A. Thirty (30) days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.05.B) become due, (or only if OWNER is a public agency, within 15 days after OWNER receives the funds which are to be provided by a department or agency of the federal or state government, whichever is later, or in accordance with any time periods required by any applicable statute, rule or regulation) and when due will be paid by OWNER to CONTRACTOR.

B. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

1. Claims have been made against OWNER based on CONTRACTOR's conduct in the performance or furnishing of the Work, or OWNER has incurred costs, losses, or damages resulting from CONTRACTOR's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries,

adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

2. CONTRACTOR has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

3. CONTRACTOR has failed to provide and maintain required bonds or insurance;

4. OWNER has been required to remove or remediate a Hazardous Environmental Condition for which CONTRACTOR is responsible;

5. OWNER has incurred extra charges or engineering costs related to Submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

6. The Work is defective, requiring correction or replacement;

7. OWNER has been required to correct defective Work in accordance with paragraph 13.09, or has accepted defective Work pursuant to paragraph 13.08;

8. The Contract Price has been reduced by Change Orders;

9. An event has occurred that would constitute a default by CONTRACTOR and therefore justify a termination for cause;

10. Liquidated or other damages have accrued as a result of CONTRACTOR's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

11. 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;

12. there are other items as set forth in the Contract Documents entitling OWNER to a set off against the amount recommended; or

13. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.04.E.1 through 14.04.E.5.

C. 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. The reduction imposed shall be binding on CONTRACTOR unless CONTRACTOR duly submits a Change Proposal contesting the reduction.

D. 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 14.05.

14.06 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 at the time of payment free and clear of all Liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

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14.07 Substantial Completion

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete and request that ENGINEER issue a Certificate of Substantial Completion. CONTRACTOR shall at the same time submit to OWNER and ENGINEER an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after CONTRACTOR's notification, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor.

C. Once ENGINEER considers the Work substantially complete, ENGINEER will deliver to OWNER a preliminary Certificate of Substantial Completion which shall fix the date of Substantial Completion. ENGINEER shall attach to the certificate a punch list of items to be completed or corrected before final payment. OWNER shall have 7 days after receipt of the preliminary certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, ENGINEER concludes that the Work is not substantially complete, ENGINEER will, within 14 days after submission of the preliminary certificate to OWNER, notify CONTRACTOR in writing that the Work is not substantially complete, stating the reasons therefore. If OWNER does not object to the provisions of the certificate, or if despite consideration of OWNER's objections ENGINEER concludes that the Work is substantially complete, then ENGINEER will, within said 14 days, execute and deliver to OWNER and CONTRACTOR a final Certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as ENGINEER believes justified after consideration of any objections from OWNER.

D. At the time of receipt of the preliminary Certificate of Substantial Completion, OWNER and CONTRACTOR will confer regarding OWNER's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by OWNER. Unless OWNER and CONTRACTOR agree otherwise in writing, OWNER shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon OWNER's use or occupancy of the Work.

E. After Substantial Completion the CONTRACTOR shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases CONTRACTOR may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion subject to allowing CONTRACTOR reasonable access to remove its property and complete or correct items on the punch list.

14.08 Partial Utilization

A. Use by OWNER of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:

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1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any part of the Work which OWNER believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER and ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion.

    a. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving his reasons therefor.

    b. If ENGINEER considers that part of the Work to be substantially complete, ENGINEER will execute and deliver to OWNER and CONTRACTOR a certificate to that effect, fixing the date of Substantial Completion for that part of the Work, attaching thereto a punch list of items to be completed or corrected before final payment.

2. Prior to issuing a certificate of Substantial Completion for that part of the Work, ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities and insurance for that part of the Work, which shall become binding upon OWNER and CONTRACTOR at the time of issuing the definitive certificate of Substantial Completion for that part of the Work unless OWNER and CONTRACTOR shall have otherwise agreed in writing and so informed ENGINEER.

3. OWNER shall have the right to exclude CONTRACTOR from any part of the Work which ENGINEER has so certified to be substantially complete, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the punch list.

4. In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, OWNER may take over operation of a facility constituting part of the Work whether or not it is Substantially Complete if such facility is functionally and separately usable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.09 Final Inspection

A. Upon written notice from CONTRACTOR that the Work is complete, ENGINEER will 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.

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14.10 Final Application for Payment

A. After CONTRACTOR has completed all corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked up record documents and other documents (all as required by the Contract Documents), and after ENGINEER has indicated that the Work is acceptable, subject to the provisions of paragraph 14.13, CONTRACTOR may make application for final payment following the procedure for progress payments.

B. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as ENGINEER may reasonably require, consent of Surety, if any, to final payment, together with complete and legally effective releases or waivers, satisfactory to OWNER, of all Liens arising out of or filed in connection with the Work.

C. In lieu of the releases or waivers of Lien, if approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or his property might in any way be responsible, have been paid or otherwise satisfied.

D. If any Subcontractor, manufacturer, fabricator, Supplier or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Claim or Lien.

14.11 Final Payment and Acceptance

A. 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 (all as required by the Contract Documents), ENGINEER is satisfied that to the best of ENGINEER's knowledge, information and belief as a design professional that the Work has been completed and CONTRACTOR has fulfilled all of his obligations under the Contract Documents, ENGINEER will, within 10 days after receipt of the final Application for Payment, indicate in writing ENGINEER's Certificate for Payment and present the application to OWNER for payment. At that time ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.13.

B. Otherwise, ENGINEER will return the Application 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.

C. If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within 45 days (or within the time period required by any applicable statute, rule or regulation) after receipt thereof pay CONTRACTOR the amount recommended by ENGINEER less any amounts of OWNER claimed set-offs allowed under the Contract Documents, including but not limited to any applicable liquidated damages as determined by OWNER. If OWNER rejects the Application, OWNER shall do so in writing stating the appropriate sections of the Contract Documents upon which the rejection is based. CONTRACTOR may take the necessary remedial actions and resubmit the Application.

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14.12 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 and recommendation of ENGINEER, and without terminating the Agreement, 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.

14.13 Waiver of Claims

A. The making and acceptance of final payment shall constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.09, or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; and shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's existing or continuing obligations under the Contract Documents; and,

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing and still pending in accordance with Article 16.

14.14 Late Payments

A. All monies not paid when due hereunder, except monies involving Federal and/or State Loans, Grants, or other sources which are delinquent because of no fault of the OWNER, shall bear interest at the maximum rate allowed by law at the time and place of the Project.

Article 15 Suspension of Work and Termination

15.01 Owner May Suspend Work

A. OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period as OWNER may deem necessary by notice in writing to CONTRACTOR and ENGINEER. If it should become necessary to stop work for an indefinite period, CONTRACTOR shall store all materials in such manner that they will not become an obstruction, nor become damaged in any way, and CONTRACTOR shall take every precaution to prevent damage or deterioration of the Work performed; provide suitable drainage by opening ditches and drains, and erect temporary structures where necessary. CONTRACTOR may request an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if he makes a Claim therefor as provided in paragraph 11.01.

15.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will constitute a default by CONTRACTOR and justify termination for cause:

1. CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time;

2. a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereinafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

3. CONTRACTOR makes a general assignment for the benefit of creditors;

4. a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;

5. CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

6. CONTRACTOR persistently fails 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 2.05 as revised from time to time);

7. CONTRACTOR disregards Laws and Regulations of any public body having jurisdiction;

8. CONTRACTOR disregards the authority of ENGINEER or OWNER; or,

9. CONTRACTOR otherwise violates any provisions of the Contract Documents.

B. OWNER may, after giving CONTRACTOR (and the Surety, if there be one) 7 days' written notice, and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, 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), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, finish the Work as OWNER may deem expedient, and/or enforce the rights available to OWNER under any applicable Performance Bond.

C. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, damages and expenses sustained by OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, damages and expenses exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, damages and expenses incurred by OWNER will be reviewed as to reasonableness by ENGINEER and when so approved, incorporated in a Change Order, but when exercising any rights or remedies under this paragraph, OWNER shall not be required to obtain the lowest price for the Work performed.

D. Where CONTRACTOR's services have been so terminated by OWNER, the termination shall not affect any rights or remedies of OWNER against CONTRACTOR or its Surety then existing or which may thereafter accrue. Any retention or payment of monies due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 Termination for Convenience

A. Upon 7 days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;
2. for actual 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; and
3. for reasonable expenses directly attributable to protecting work as a result of 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.

C. Upon such termination, CONTRACTOR shall:

1. Immediately discontinue Work on the date and to the extent specified in the notice except to the extent necessary to protect Work in place;
2. Place no further orders for materials, services, or facilities, other than as may be necessary or required for completion of such portion of Work under the Contract that is not terminated;
3. Promptly make every reasonable effort to obtain cancellation upon terms reasonably satisfactory to OWNER of all purchase orders and subcontracts to the extent they relate to the performance of Work terminated or assign to OWNER those orders and subcontracts and revoke agreements specified in such notice;
4. Reasonably assist OWNER, as specifically requested in writing, in the maintenance, protection and disposition of property acquired by OWNER under the Contract Documents, as may be necessary;
5. Complete performance of any Work which is not terminated; and
6. Deliver to OWNER an affidavit regarding the identity of potential unpaid Subcontractors or Suppliers and the amounts due to each.

15.04 Contractor May Stop Work or Terminate

A. If OWNER has failed to pay CONTRACTOR any sum finally determined to be due in accordance with the time limits specified in paragraph 14.05, CONTRACTOR may upon 7 days' written notice to OWNER and ENGINEER, stop the Work until payment of all amounts then due.

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B. If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than 90 days by OWNER, or under an order of court or other public authority, then CONTRACTOR may, upon 7 days written notice to OWNER and ENGINEER and provided OWNER or ENGINEER does not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.03.

C. The provisions of this paragraph 15.04 shall not relieve CONTRACTOR of his obligations under paragraph 6.22 to carry on the Work in accordance with the Progress Schedule and without delay during disputes and disagreements with OWNER.

Article 16 Final Resolution of Disputes

16.01 Methods and Procedures

A. Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between OWNER and CONTRACTOR concerning the Work or obligations under the Contract Documents and arising after final payment has been made.

B. Final Resolution of Disputes: For any dispute subject to resolution under this Article, OWNER or CONTRACTOR may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, the following dispute resolution process shall be followed:

a. The parties shall submit the dispute to mediation under the mediation procedures outlined in the Construction Industry Arbitration Rules and Mediation Procedures of the American Arbitration Rules.

b. If the dispute is not resolved by mediation, the parties shall proceed to resolve the dispute by arbitration in accordance with the Construction Industry Arbitration Rules and Mediation Procedures of the American Arbitration Association. The decision of the arbitrator(s) shall be final and binding and is enforceable in a court of competent jurisdiction in accordance with Trabal Resolution #091318-01.

Article 17 Miscellaneous

17.01 Giving Notice

A. Whenever any provision of the Contract Documents requires the giving of written notice to OWNER, ENGINEER, or CONTRACTOR, it shall be deemed to have been validly given only if delivered:

1. in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended;

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2. by registered or certified mail postage prepaid to, the last business address known to the giver of the notice;

3. or delivered in person to such person by a commercial courier service or otherwise to the recipient's place of business; or

4. by secure file transfer with receipt documentation or other document control software.

17.02 Computation of Time

A. When any period of time is referred to in the Contract Documents by days, it shall 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 shall be omitted from the computation.

17.03 General

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 shall not 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 Law or Regulation, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this paragraph shall 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.

B. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of this Agreement.

17.04 Professional Fees and Court Costs Included

A. Whenever reference is made to "claims, costs, losses, damages and expenses," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

17.05 Nondiscrimination of Employment

A. The CONTRACTOR shall covenant and agree not to discriminate against any employee or applicant for employment, to be employed in the performance of this Contract, with respect to his hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religion, national origin or ancestry, height, weight, or marital status, or any other classification protected by law, and to require a similar covenant on the part of any Subcontractor employed in the performance of the Contract.

17.06 Post Completion Date Engineering and Inspection Costs

A. All engineering and inspection costs incurred after the specified completion date shall be paid by CONTRACTOR to OWNER prior to final payment authorization. However, CONTRACTOR shall not be charged with any post completion date engineering and inspection costs when the delay in completion of the Work is due to the following and CONTRACTOR has promptly given written notice of such delay to OWNER or ENGINEER:

1. to any preference, priority or allocation order duly issued by OWNER;

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2. to unforeseeable causes beyond the control and without the fault or negligence of CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of OWNER, acts of another contractor in the performance of a Contract with OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and,

3. to any delays of Subcontractors or Suppliers occasioned by any of the causes specified in this Article.

B. Charges after the specified completion date shall be made at such times and in such amounts as ENGINEER shall invoice OWNER, provided, however said charges shall be in accordance with ENGINEER's current rate schedule at the time the costs are incurred. Engineering and inspection costs so incurred shall be deducted from CONTRACTOR's progress payments.

17.07 Waiver of Consequential Damages

A. CONTRACTOR and OWNER waive Claims against each other for consequential damages arising out of or relating to this Contract or the Work. This mutual waiver includes but is not limited to:

1. damages incurred by OWNER for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. damages incurred by CONTRACTOR for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit in connection with any other project or anticipated project.

B. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination or default. Nothing contained in this Section shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. CONTRACTOR also waives any Claim for consequential damages against ENGINEER where such Claims arise out of or relate in any way to the Project or the Contract Documents.

17.08 No Waiver

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

17.09 Controlling Law

A. This Contract is to be governed by the Little Traverse Bay Bands of Odawa Indians Tribal Laws.

17.10 Headings

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

End of Section

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Section 00 7300
Supplementary Conditions

These Supplementary Conditions amend or supplement Section 00 7200, General Conditions, as indicated below. All provisions which are not amended or supplemented by this section remain in full force and effect. The terms used in these Supplementary Conditions have the meanings assigned to them in the General Conditions.

SGC-1.01 Defined Terms

The definition for "Substantial Completion" in Article 1.01 of the General Conditions shall be revised as follows:

> Substantial Completion -- The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by the Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.11. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

SGC-4.02 Subsurface and Physical Conditions; Investigations and Reports

Add a new paragraph immediately after the first paragraph of paragraphs 4.02 of the General Conditions, which is to read as follows:

> In the preparation of Plans and Specifications, ENGINEER has relied upon the following reports and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work:

Copies of the following reports and/or tests are attached as Exhibits: N/A

SGC-5.03.D Additional Insured

Add the following language at the end of Article 5.03.A.4 of the General Conditions:

A. OWNER's Name: Little Traverse Bay Bands of Odawa ndians

Additional named insured on OWNER's and CONTRACTOR's Protective Policy shall include:

1. Wade Trim, Inc.

SGC-5.04 Limits of Liability

The required limits of liability for insurance coverages requested in Article 5.03 of the General Conditions shall be not less than the following:

SGC-5.04.A Worker's Compensation

Coverage A – Compensation	Statutory
Coverage B – Employer's Liability	
Each Accident	$ 100,000
Disease – Policy Limit	$ 100,000
Disease – Each Employee	$ 100,000

SGC-5.04.B Comprehensive General Liability

General Aggregate	$1,000,000
Products – Com/Ops Aggregate	$1,000,000
Personal and Advertising Injury	$ 500,000
Each Occurrence	$ 500,000
Fire Damage (any one fire)	$ 50,000
Medical Expense (any one person)	$ 5,000

SGC-5.04.C Comprehensive Automobile Liability

Bodily Injury	$ 500,000
Property Damage	$ 200,000
or combined single limit	$1,000,000

SGC-5.04.D OWNER's Protective – Coverage shall be Occurrence Form

General Aggregate	$1,000,000
Each Occurrence	$1,000,000

SGC-5.04.E Builder's Risk-Installation Floater

Cost to Replace at Time of Loss

SGC-5.04.F. Umbrella or Excess Liability $2,000,000

SGC-5.04.G. Railroad Protective Liability – Railroad Coverage

Each Occurrence	$2,000,000
Aggregate	$2,000,000

SGC- 12.04 Lump Sum Work

Add the following new paragraph after Article 12.03 of the General Conditions, which is to read as follows:

12.04 Lump Sum Work

A. When additional work or deletion of work, which is covered by a lump sum item, is required due to a modification, not a normal overrun or underrun in estimated quantities, payment or credit for the work will be based upon apparent unit prices which will be derived by dividing the lump sum price by the estimated plan quantities.

Renumber subsequent paragraphs accordingly.

SGC-18 Liquidated Damages

Liquidated damages, if applicable, are referenced in the Proposal and Agreement. The requirements for liquidated damages should be included herein.

Article 18 – Liquidated Damages

A. If CONTRACTOR shall fail to Substantially Complete the Work within the Contract Time, or extension of time granted by OWNER, then CONTRACTOR will pay to OWNER the amount for liquidated damages as specified in the Agreement for each calendar day that CONTRACTOR shall be in default after the time stipulated in the Contract Documents. The liquidated damages charged shall be deducted from CONTRACTOR's progress payments.

B. CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in Substantial Completion of the Work is due to the following and CONTRACTOR has given written notice of such delay within seven (7) calendar days to OWNER or ENGINEER.

Section 00 7300
Supplementary Conditions

These Supplementary Conditions amend or supplement Section 00 7200, General Conditions, as indicated below. All provisions which are not amended or supplemented by this section remain in full force and effect. The terms used in these Supplementary Conditions have the meanings assigned to them in the General Conditions.

SGC-1.01 Defined Terms

The definition for "Substantial Completion" in Article 1.01 of the General Conditions shall be revised as follows:

> Substantial Completion -- The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by the Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.11. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

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Add a new paragraph immediately after the first paragraph of paragraphs 4.02 of the General Conditions, which is to read as follows:

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Additional named insured on OWNER's and CONTRACTOR's Protective Policy shall include:

1. Wade Trim, Inc.

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The required limits of liability for insurance coverages requested in Article 5.03 of the General Conditions shall be not less than the following:

SGC-5.04.A Worker's Compensation

Coverage A – Compensation	Statutory
Coverage B – Employer's Liability	
Each Accident	$ 100,000
Disease – Policy Limit	$ 100,000
Disease – Each Employee	$ 100,000

SGC-5.04.B Comprehensive General Liability

General Aggregate	$1,000,000
Products – Com/Ops Aggregate	$1,000,000
Personal and Advertising Injury	$ 500,000
Each Occurrence	$ 500,000
Fire Damage (any one fire)	$ 50,000
Medical Expense (any one person)	$ 5,000

SGC-5.04.C Comprehensive Automobile Liability

Bodily Injury	$ 500,000
Property Damage	$ 200,000
or combined single limit	$1,000,000

SGC-5.04.D OWNER's Protective – Coverage shall be Occurrence Form

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Each Occurrence	$1,000,000

SGC-5.04.E Builder's Risk-Installation Floater

Cost to Replace at Time of Loss

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Each Occurrence	$2,000,000
Aggregate	$2,000,000

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Add the following new paragraph after Article 12.03 of the General Conditions, which is to read as follows:

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Renumber subsequent paragraphs accordingly.

SGC-18 Liquidated Damages

Liquidated damages, if applicable, are referenced in the Proposal and Agreement. The requirements for liquidated damages should be included herein.

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A. If CONTRACTOR shall fail to Substantially Complete the Work within the Contract Time, or extension of time granted by OWNER, then CONTRACTOR will pay to OWNER the amount for liquidated damages as specified in the Agreement for each calendar day that CONTRACTOR shall be in default after the time stipulated in the Contract Documents. The liquidated damages charged shall be deducted from CONTRACTOR's progress payments.

B. CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in Substantial Completion of the Work is due to the following and CONTRACTOR has given written notice of such delay within seven (7) calendar days to OWNER or ENGINEER.

1. To any preference, priority or allocation order duly issued by the OWNER.

2. To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a Contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

3. To any delays of subcontractors occasioned by any of the causes specified in Items A and B of this article.

End of Section

1. To any preference, priority or allocation order duly issued by the OWNER.

2. To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a Contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

3. To any delays of subcontractors occasioned by any of the causes specified in Items A and B of this article.

End of Section

Division 01
General Requirements

Section 01 1100
Summary of Work

Part 1 General

1.01 Work Covered By Contract Documents

This Project includes Construction of a new Youth Center at the Little Traverse Bay Bands of Odawa Indians Governmental Comple. Construction includes clearing, site grading, aggregate base, HMA paving, concrete sidewalk, ADA ramp, pavement markings, onsite sewage disposal field, septic tanks, sewage dosing pumps, forcemain, watermain, 6-inch, blow-off hydrant, 1-inch water service, landscaping, and site restoration.

1.02 Work by Others

A. There is no other work in the Project area, known to OWNER, which would affect this Contract.

1.03 Right-of-Way Jurisdiction/Permits

A. Odawa Circle and Employee Entrance drive are under the jurisdiction of the Little Traverse Bay Bands of Odawa Indians (LTBBOI).

B. Soil erosion and sedimentation control is under the jurisdiction of the Little Traverse Bay Bands of Odawa Indians.

C. CONTRACTOR shall secure any permits required by the agency having jurisdiction, shall abide by all rules and regulations of each, and shall pay all costs in connection with the permits. CONTRACTOR shall pay for all permit and inspection fees as the agencies may charge to insure compliance with their requirements.

1.04 Coordination

A. A shutoff notice shall be delivered by CONTRACTOR to all affected residences and businesses a minimum of two days before any water main is shut off for construction.

B. Whenever an existing gate valve must be opened or closed, the LTBBOI Water Department shall be notified. Valves shall be opened or closed only by the LTBBOI Water Department or their representatives.

C. It shall be the responsibility of CONTRACTOR to coordinate his operations and those of his subcontractors in such a manner so as to avoid interference and delays in the areas of common construction activities.

1.05 CONTRACTOR's Use of Premises

A. CONTRACTOR shall maintain his construction operations within the presently existing road rights-of-way and easements throughout the Project area. In the event that CONTRACTOR deems it necessary or advisable to operate beyond the limits of the existing rights-of-way or easements, he shall be responsible for making special written agreements with the property owners and shall furnish such copies of agreement to OWNER.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 3300
Submittal Procedures

Part 1 General

1.01 General Requirements

A. CONTRACTOR shall submit Shop Drawings, product data, and Samples, as required by the individual Specification sections, to ENGINEER for review in accordance with the provisions of General Conditions.

1.02 Progress Schedules

A. CONTRACTOR shall submit one (1) electronic copy in PDF format of Progress Schedules indicating the starting and completion dates of the various stages of the Work and estimated payments to ENGINEER.

1. Proposed Progress Schedules shall be submitted to ENGINEER prior to the pre-construction meeting.

2. CONTRACTOR shall distribute hard copies of the Progress Schedules during the pre-construction meeting for discussion.

3. Progress Schedules shall be updated by CONTRACTOR and submitted electronically (in PDF format) to ENGINEER, as a part of applications for progress payments, through completion of the Work. Failure to update Progress Schedule may be the basis for rejection of Applications for Progress Payments.

1.03 Shop Drawing Schedule

A. CONTRACTOR shall submit one (1) electronic copy in PDF format of the Shop Drawing Schedule indicating the individual items and submission dates to ENGINEER.

1. A preliminary Shop Drawing Schedule in accordance with the requirements in the General Conditions shall be submitted by CONTRACTOR prior to the pre-construction meeting.

2. CONTRACTOR shall distribute hard copies of the Shop Drawing Schedule during the pre-construction meeting for discussion.

3. A final electronic copy of the Shop Drawing Schedule (in PDF format) shall be submitted by CONTRACTOR at least ten (10) days prior to submitting the first Application for a Payment.

1.04 Schedule of Values

A. CONTRACTOR, if applicable, shall submit one (1) electronic copy in PDF format Schedule of Values of the Work to ENGINEER.

1. A preliminary Schedule of Values shall be submitted by CONTRACTOR prior to the pre-construction meeting.

2. CONTRACTOR shall distribute hard copies of the Schedule of Values during the pre-construction meeting for discussion.

3. A final Schedule of Values (in PDF format), prepared in accordance with the General Conditions and presented in sufficient detail to serve as the basis for payments during construction, shall be submitted to ENGINEER for review at least ten (10) days prior to submitting the first Application for Payment.

1.05 Staking Schedule

A. CONTRACTOR shall submit one (1) electronic copy in PDF format of the staking schedule, in accordance with the "Construction Layout" specification section prior to the start of construction.

1. The staking schedule should be updated as outlined in the Specifications and submitted by CONTRACTOR to ENGINEER through completion of the Work.

1.06 Applications for Payment

A. CONTRACTOR shall submit one (1) electronic copy in PDF format Applications for Payment to ENGINEER in accordance with the provisions of Article 14 of the General Conditions.

B. Applications for Payment shall be made on forms provided by or approved by ENGINEER.

1. Sample CONTRACTOR's Application for Payment, Payment Schedule and ENGINEER's Certificate for Payment forms are included in the Contract Documents and can be obtained in digital format from ENGINEER.

C. Copies of these forms, with Project specific information completed by ENGINEER, will be given to CONTRACTOR at the preconstruction meeting or, if applicable, after approval of the final Schedule of Values.

D. CONTRACTOR shall submit a completed Payment Schedule with an executed Contractor's Application for Payment and Contractor's Declaration to ENGINEER not more often than once per month.

E. ENGINEER will certify payments with the use of Engineer's Certificate for Payment.

1.07 Shop Drawings

A. Shop Drawings shall be presented in a clear and thorough manner. Details shall be identified by reference to plan sheet number, detail number if applicable, and Specification section number, and article number.

1.08 Product Data

A. Product Data shall be presented in a clear and thorough manner identified the same as the Shop Drawings. Included with the information shall be performance characteristics and capacities depicting dimensions and clearances required.

B. Manufacturer's standard schematic drawings and diagrams shall be modified to delete information which is not applicable to the Work. Manufacturer's standard information shall be supplemented to provide information specifically applicable to the Work.

1.09 Samples

A. Samples shall be of sufficient size and quantity to clearly illustrate functional characteristics of the product with integrally related parts and attachment devices depicting full range of color, texture and pattern.

1.10 Submission Requirements

A. CONTRACTOR shall make Submittals in accordance with the approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other Contractor. No damages will be awarded, or extension of time granted, due to the Shop Drawing and product data review process.

B. CONTRACTOR shall submit an entire package of Shop Drawings and Product Data information for major items of Work so that ENGINEER can review the package as a unit.

C. CONTRACTOR shall submit one (1) electronic copy in PDF format of Shop Drawings and Product Data information containing the following information at a minimum:

1. Field dimensions clearly identified as such.

2. Relation to adjacent or critical features of the Work or materials.

3. Applicable standards, such as ASTM or Federal Specification Numbers.

4. Identification of deviations from Contract Documents.

5. Identification of revisions on resubmittals.

6. Project Title, Date of Submission, Date of Previous Submission, and Specification Section number.

D. CONTRACTOR shall initial or sign Shop Drawings and Product Data submittals, certifying CONTRACTOR's review and approval of Submittal per the General Conditions; verification of products, field measurements, field construction criteria, and coordination of the information within the submittal with requirements of the Work and of Contract Documents.

E. ENGINEER shall initial or sign Shop Drawings and Product Data submittal and shall indicate the status of the Submittal, or requirements for resubmittal. ENGINEER shall return to CONTRACTOR one (1) electronic copy of the Shop Drawing and/or Product Data submittal (in PDF format) for distribution or for resubmission.

1.11 Engineer's Review

A. Upon receipt of any Submittal defined above, ENGINEER will:

1. Check each for completeness, clarity, correctness, cohesiveness, legibility, and reproducibility.

2. Review each only for general conformity with the Contract Documents as specified in the General Conditions.

B. After review of any Submittal, ENGINEER will appropriately affix a stamp, electronic notation box or other means, signifying the Submittal as having received full consideration and review.

C. The "status" of any such Submittal or portion thereof, as appropriate, will be evidenced by any one or more of the following notations clearly signified by a "X" or other similar mark placed in the box adjacent to the notation:

1. Notations for ENGINEER'S Review:
   - No Exceptions Taken
   - Note Markings
   - Comments Attached
   - Rejected

2. Notations for Response Required by CONTRACTOR:
   - None
   - Confirm
   - Resubmit

D. Notation Meanings:

1. Elements marked "No Exceptions Taken" indicate that CONTRACTOR may commence with construction, fabrication or purchase of such items provided CONTRACTOR.

2. Elements marked "Note Markings" indicate that the CONTRACTOR may commence with construction, fabrication or purchase of such items provided the CONTRACTOR.

   a. Proceeds in strict accordance with ENGINEER's notes and/or required corrections/deletions/additions indicated thereon;

   b. Pending appropriate response by CONTRACTOR as further noted.

3. Elements marked "Comments Attached" indicate that further comments or explanations have been affixed to the Submittal, which may require action(s) by CONTRACTOR as further noted.

4. Elements marked "Rejected" indicate that CONTRACTOR must make the required corrections as shown or noted and resubmit such items to ENGINEER for further review.

5. Elements marked "None" indicate that the Submittal requires no further action by CONTRACTOR.

6. Elements marked "Confirm" require CONTRACTOR to provide affirmation to ENGINEER regarding comments, notes, markings, etc. made by ENGINEER, and to affirm that CONTRACTOR will comply with the comments, notes, markings, etc.

7. Elements marked “Resubmit” indicate that CONTRACTOR may not commence with construction, fabrication or purchase of such items, and that CONTRACTOR must resubmit items for review that comply with the Contract Documents in the event that those originally submitted do not, or with any comments, notes, markings, etc. made by ENGINEER.

1.12 Resubmission Requirements

A. CONTRACTOR shall make all corrections or changes in the Submittals required by ENGINEER and resubmit. CONTRACTOR shall indicate any changes which have been made other than those requested by ENGINEER.

1.13 Manufacturer's Operation and Maintenance Data

A. CONTRACTOR shall submit one (1) electronic copy in PDF format and one (1) bound copy of all operation and maintenance data required per the various Specification sections.

1. Prior to 50% completion of the Project, CONTRACTOR shall have submitted one (1) acceptable copy to ENGINEER for review.

B. Final copies of the operation and maintenance data shall be bound in a suitable number of 3-inch or 4-inch, 3-ring hard cover binders. Permanently imprinted on the cover shall be the words "Manufacturer's Operation and Maintenance Data", Project title, location of the Project, and the date. A table of contents shall be provided in the front of each binder to list the various sections in the manual.

C. The information to be provided in each section of the manual, for each piece of equipment and project component shall include, but not be limited to, detailed equipment drawings; sections cut through all of the major equipment and subassemblies; installation and operational procedures; complete wiring and piping schematics; lubrication materials and procedures; maintenance procedures; and parts lists complete enough to permit identification of parts by nomenclature, manufacturer’s part number and use.

D. At the front of each section a maintenance schedule shall be provided for each piece of equipment in the section.

1. The schedule shall display the daily, weekly, monthly, semi-annual, annual or fraction thereof, lubrication and preventative maintenance required in order to meet warranty conditions and the manufacturer's recommendations for optimum performance and life of the unit.

2. A common schedule format is to be developed and used for all of the sections. Photocopies or reproductions of the manufacturer's literature will not be accepted.

1.14 Audio/Video Route Survey

A. When required in the Summary of Work, Section 01 1100, or the Proposal, CONTRACTOR shall furnish ENGINEER with an "Audio/Video Route Survey" record of the existing conditions prior to the start of construction. CONTRACTOR must enlist the services of a firm having a minimum of one (1) year experience in audio/video recording of construction projects.

B. Prior to beginning the audio/video recording, CONTRACTOR shall review with ENGINEER the Project requirements to ensure that the audio/video is adequate for its intended purpose. OWNER shall have the authority to designate areas for which coverage may be added or omitted. The audio/video recording shall be done prior to placement of materials or equipment on the construction area and furnished one (1) week prior to the pre-construction meeting.

C. Format:

1. Audio/Video route survey shall be submitted in the format(s) as specified in Section 01 1100, Summary of Work.

(1) Audio/video route survey submission shall be on USB media

(2) Format: USB – Video

(3) Video Encoding: Highest available bit rate (6-9 Megabit), 60 fields per second interlaced video

(4) Audio Encoding: Uncompressed stereo wave or stereo Dolby Digital (256 kilobit or better)

(5) Aspect Ratio: 4x3 (720x480 pixels)

(6) No Macrovision or other copy protection encoding. No region code or region code 1.

D. Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties up to building line when such properties lie within the zone of influence of construction and will be supported by appropriate audio description made simultaneously with video coverage. Such coverage shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culvert, headwalls, retaining walls, and buildings located within such zone of influence. Video coverage shall be clear enough to identify cracks, depressions, holes and other defects in existing surfaces.

E. Houses and buildings shall be identified visually by house number, when visible, in such a manner that structures of the proposed system can be located by reference. In all instances, however, location shall be identified by audio or visual means at intervals not-to-exceed 100 linear feet (30 m) in the general direction of travel.

F. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall be not less than 12 feet (3.5 m) to ensure proper perspective. The rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 30 feet/minute (10 m/min). Panning rates and zoom-in, zoom-out rates shall be controlled sufficiently such that stop action during play-back will produce clarity of detail of the object viewed.

G. Video recordings must, by electronic means, display continuously and simultaneously generated transparent digital information in the upper left hand third of the screen to include the date and time of recording, as well as the corresponding engineering stationing numbers as shown on the Contract Drawings.

1. The date information will contain the month, day, and year. For example, mm/dd/yy, and be placed directly below the time information.

2. The time information shall consist of hours, minutes, and seconds, separated by colons. For example, hh:mm:ss.

H. Engineering stationing numbers must be continuous, accurate and correspond to the Project stationing and must include the standard engineering symbols. For example, Station 14+84.

I. Recording shall be done during times of good visibility. No recording shall be done during periods of visible precipitation, or when more than ten (10) percent of the ground area is covered with snow or standing water, unless otherwise authorized by OWNER.

J. In some instances, audio/video coverage may not be suitable for recording necessary details. In such instances, OWNER may specify still photographs to provide coverage. One (1) color photograph shall be provided in accordance with Article 1.15 of this Section with a suitable description of the photograph's location.

K. Any portion of the Audio/Video Route Survey of insufficient quality as determined by ENGINEER shall be redone by CONTRACTOR at no additional cost to OWNER.

L. Each USB shall be properly identified with the Project Title, location, time, and date in a manner acceptable to OWNER.

1.15 Photographs

A. When required in the Summary of Work, Section 01 1100, or the Proposal, Section 00 4243, CONTRACTOR shall furnish ENGINEER with a total of 6 to 10 digital color photographs each month during construction of the Project, unless some other number and times is specified in the Summary of Work.

B. Photos shall be in digital format (i.e., JPEF, TIFF, GIF, PNG or PDF) and shall have a minimum resolution of 300 dpi.

C. The following information shall be placed on the photo itself or embedded in the digital file:

1. Project Title
2. Contract Number
3. Description of photo's content
4. Date and Time of photo

D. CONTRACTOR shall submit photographs monthly along with the Application for Payment as described in Article 14 of the General Conditions.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 4219
Reference Standards

Part 1 General

1.01 Work Covered by Contract Documents

A. The Michigan Department of Transportation (MDOT) 2003 Standard Specifications for Construction are hereby incorporated into this Contract by reference and apply to the Work specified herein.

1. Sections of the MDOT 2003 Standard Specifications for Construction are applicable, unless noted otherwise in this proposal or special provision.

2. Pay items are MDOT pay items covered by the MDOT 2003 Standard Specifications for Construction or special provision.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 4500
Quality Control

Part 1 General

1.01 General Requirements

A. Sampling of materials will be made by ENGINEER in accordance with the methods designated by the Specifications. CONTRACTOR shall furnish such facilities as ENGINEER may require for collecting, storing, and forwarding samples to the Laboratory. CONTRACTOR in all cases shall furnish the required samples to OWNER without charge.

1.02 Tests of Materials

A. Materials in the Work shall meet the requirements of the Contract Documents.

B. Tests of materials will be made as specified herein. ENGINEER shall have access to materials intended for use in the Work as well as to the plants where such materials are produced. Plant inspection may be made if the quantities are sufficient to warrant such inspection and if it is to the best interest of OWNER. In any case materials may be either inspected or tested when received on the Project.

C. Materials shall not be used until approval has been received from ENGINEER. Approval of materials at the producing plant does not constitute a waiver of ENGINEER's right for re-examination at the Project site.

D. Standards for testing materials, unless otherwise specified, shall be as established by the American Society for Testing and Materials (ASTM). Tests of materials will be made in accordance with the methods described or designated in the Specifications.

E. Sampling and testing of materials not specifically mentioned shall be done by generally accepted methods, unless otherwise specified by ENGINEER.

1.03 Certification of Materials

A. At the request of ENGINEER, CONTRACTOR shall provide ENGINEER with certification that the various materials to be used conform to the standards referred to in the Contract Documents.

1.04 Source Quality Control

A. Testing identified in the Specifications as Source Quality Control, which is required to establish quality of materials, equipment or fabricated items, shall be paid for by CONTRACTOR.

1.05 Inspector Days

A. Resident Project Representative(s) will be assigned to the Project by ENGINEER, as necessary (in the opinion of ENGINEER) to adequately monitor CONTRACTOR’s work.

1. When multiple CONTRACTOR crews are working on the Project, multiple Resident Project Representatives may be assigned to the Project.

B. If the quantity of Work under the Contract is changed, the number of "Inspector Days" shall be increased or decreased as determined by Article 10 or 11 of the General Conditions. This revision in the number of Inspector Days shall be agreed upon at the time the Contract quantities are revised.

C. CONTRACTOR shall give ENGINEER at least 48 hours notice, exclusive of Saturdays, Sundays or holidays, when the Project requires an increase or decrease in the number of Resident Project Representatives.

1. Failure to observe this requirement will either necessitate the charging of 4 hours show-up time if the Resident Project Representative appears on the Project, or the halting of all additional operations until a Resident Project Representative is available.

D. Unless the Resident Project Representative is notified in advance, Inspector days will be charged when a Resident Project Representative appears on a project and CONTRACTOR decides not to work.

E. A separate Inspector Day or a partial Inspector Day shall be charged for each and every Resident Project Representative working on a project for monitoring purposes.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 5713
Temporary Erosion and Sediment Control

Part 1 General

1.01 Scope of Work

A. This Section includes furnishing, installing, maintaining, and removing at project completion, Soil Erosion and Sedimentation Control devices. Devices include silt fence, straw bales, turbidity barriers, temporary gravel construction entrance/exits, inlet filters, ditch sediment traps, etc.

1.02 Related Work Specified Elsewhere

A. Section 01 8900: Site Construction Performance Requirements
B. Section 31 2200: Grading

1.03 Reference Standards

A. ASTM - American Society for Testing and Materials

1.04 Requirements of Regulatory Agencies

A. CONTRACTOR, at his expense, shall secure all permits, and post all bonds or deposits required to comply with the "Soil Erosion and Sedimentation Control," requirements, being Part 91 of PA 451 of 1994 as amended and the National Pollution Discharge Elimination System (NPDES) Rules for storm water discharges from construction activity.

B. Comply with requirements of the agency having jurisdiction. OWNER may withhold payment to CONTRACTOR equivalent to any fines resulting from non-compliance with applicable regulations.

1.05 Performance Requirements

A. Employ Best Management Practices as defined by standard EPA 832-R-92-005.

B. Put preventative measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.

C. Control increased storm water runoff due to disturbance of surface cover due to construction activities for this Project.

D. Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this Project.

E. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall event that might occur in 10 years.

F. Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this Project. Prevent windblown

soil from leaving the project site. Comply with fugitive dust ordinances of agencies having jurisdiction. Prevent tracking or flowing of mud and sediment onto public or private roads, sidewalks or pavements outside of the site.

G. Prevent sedimentation of waterways on or off the project site, including rivers, streams, lakes, ponds, open drainage ditches, storm sewers, and sanitary sewers. If sedimentation occurs, install or correct preventative measures immediately at no cost to OWNER. Comply with requirements of agencies having jurisdiction.

H. Maintain temporary preventative measures until permanent measures have been established. Remove temporary measures when permanent measures have been established.

I. If erosion or sedimentation occurs due to non-compliance with these requirements, remove deposited sediment or restore eroded areas at no cost to OWNER.

1.06 Submittals

A. Submit schedule of Soil Erosion and Sedimentation Control activities to agency having jurisdiction. Include events (with days and/or dates of the various activities) for review and approval prior to obtaining a permit.

B. CONTRACTOR must provide evidence of Storm Water Operator license.

Part 2 Products

2.01 Silt Fence

A. Polypropylene geotextile fabric, resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; meeting the following requirements:

1. Average Opening Size: 30 U.S. Std. Sieve 600 μm), maximum; ASTM D4751.

2. Permittivity: 0.05 sec^{-1}, minimum; ASTM D4491.

3. Ultraviolet Resistance: Retaining at least 70% of tensile strength; ASTM D4355 after 500 hours exposure.

4. Tensile Strength: 100 lb-f (445 N) minimum, in cross-machine direction; 124 lb-f (551 N) minimum in machine direction; ASTM D4632.

5. Elongation: 15 to 30%; ASTM D4632.
6. Tear Strength: 55 lb-f (244 N) minimum; ASTM D4533.

B. Posts shall be 2 by 2-inch (50 mm x 50 mm) cross section hardwood stakes, minimum 3-feet (1.0 m) long.

2.02 Erosion Control Blankets

A. Machine produced blanket with a consistent thickness of evenly distributed straw or coconut fiber as specified. Unless otherwise specified on the Plans, the erosion control blanket shall have the following minimum properties:

1. Double net 100% straw blanket.

2. Top and bottom photodegradable polypropylene netting, 1.64 lbs./1,000 sft. (0.8 kg/ m^2) approximate weight.

3. 100% agricultural straw 0.5 lbs/sy (.27 kg/m^2).

B. Stitch spacing: 1.5 inches (40 mm) on centers.

C. Pegs shall be 6-inch (150 mm) long, hardwood pegs.

2.03 Bonded Fiber Matrix

A. Bonded fiber matrix (BFM) shall consist of long strand, residual, softwood fibers joined together by a high-strength, nontoxic adhesive. BFM shall be 100% biodegradable, and be non-toxic to fish, wildlife, and humans. Upon drying the matrix shall form a high strength, porous and erosion resistant mat that shall not inhibit the germination and growth of plants. BFM shall retain its form despite re-wetting.

B. Bonded fiber matrix shall consist of:

1. Seed and Fertilizer per Section 32 9219, Seeding.

2. Wood Fiber Mulch: Thermo-mechanically defibrated long, softwood fibers manufactured from select northern softwood wood chips.

3. Polyacrylamide Binder: Site specific, fully biodegradable, polyacrylamides (PAM's) binders, with cross-linking long organic jute fibers

C. Materials shall be mixed at the rate of 80 lbs/acre (90 kg/Ha) of PAM binder and 2500 lbs/acre (2800 kg/Ha) of wood fiber mulch.

Part 3 Execution

3.01 Examination

A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to the greatest extent possible.

B. Except in areas to be cleared, do not remove, cut, deface, injure or destroy trees or shrubs without ENGINEER's approval. Protect existing trees or shrubs that are to remain and which may be injured, bruised, defaced, or otherwise damaged by construction operations, with suitable fences or other means as approved by ENGINEER.

3.02 Preparation

A. Review the drawings.

B. Revise as necessary to address potential pollution from site identified at no additional cost to Owner.

C. Conduct storm water pre-construction meeting with Site Contractor, all ground-disturbing Subcontractors, site Engineer of record or someone from their office familiar with the site and SWPPP, and state or local agency personnel in accordance with requirements of the special conditions.

D. Schedule work so that the soil surfaces are left exposed for the minimum amount of time. Place permanent soil and sedimentation control measures as soon as practical.

3.03 General

A. Do not discharge excavation ground water to the sanitary sewer, storm sewer, or to rivers, streams, etc. without authorization from the agency having jurisdiction. Construction site runoff will be prevented from entering any storm drain, river, stream, etc. directly by the use of silt fences or other suitable methods. CONTRACTOR shall provide erosion protection of surrounding soils.

B. Sedimentation control devices shall be installed prior to CONTRACTOR beginning Work. Soil erosion and sedimentation control devices shall be maintained in an effective functioning condition at all times during the course of the Work.

C. Immediately bring earthwork to final grade and protect sideslopes and backslopes from erosion. Plan and conduct earthwork to minimize duration of exposure of unprotected soils.

3.04 Installation - General

A. Install silt fences, ditch sediment traps, check dams, inlet filters, temporary gravel construction entrance/exits, turbidity barriers, erosion control blankets and other soil erosion control devices in accordance with the drawings and Storm Water Pollution Prevention Plan, or as may be dictated by site conditions in order to maintain the intent of the specifications and permits.

B. Deficiencies or changes on the drawings or SWPP shall be corrected or implemented as site conditions change. Changes during construction shall be noted in the SWPP and posted on the drawings.

C. OWNER has authority to limit surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and embankment operations and to direct CONTRACTOR to provide immediate permanent or temporary pollution control measures.

D. Remove temporary control devices after permanent measure are established. Remove and replace temporary control devices if they become ineffective at no additional cost to OWNER.

E. CONTRACTOR shall incorporate permanent erosion control features, paving, permanent slope stabilization, and vegetation into project at earliest practical time to minimize need for temporary controls.

F. CONTRACTOR shall permanently seed and mulch cut slopes as excavation proceeds to extent considered desirable and practical.

3.05 Dust Control

A. Keep dust down at all times, including during non-working periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming is not permitted.

3.06 Installation of Erosion Control Blankets

A. Erosion control blankets shall be pegged at the pattern and rate as recommended by the manufacturer, however, at a minimum, blankets shall be pegged at the rate of 1.75 pegs per square yard (2pegs/m^2) of blanket, unless otherwise indicated on the plans.

3.07 Application of Bonded Fiber Matrix

A. The slope shall be prepared and graded prior to application of bonded fiber matrix (BFM). Mixture of wood fiber mulch and polyacrylamide binder shall be blended, with the appropriate amount of seed and fertilizer per Section32 9219, Seeding, according to manufacturer's recommendations.

B. BFM shall be hydraulically applied to the soil as a viscous mixture, crating a continuous, three-dimensional blanket that adheres to the soil surface. BFM shall be mixed and applied at the rate as specified in Article 2.06 unless otherwise indicated on the Plans.

C. The resulting coverage must be at least 1/8 inch (3 mm) thick over the entire surface area. BFM shall be applied in two applications from alternate directions to eliminate shadowing and shall be applied when no rain is expected for 12 hours.

3.08 Maintenance

A. Maintain temporary erosion and sedimentation control systems as dictated by site conditions, indicated in the construction documents, or as directed by governing authorities or OWNER to control sediment until final stabilization.

B. CONTRACTOR shall respond to maintenance or additional work ordered by OWNER or governing authorities immediately, but in no case, within not more than 48 hours if required at no additional cost to OWNER.

3.09 Inspection

A. General:

1. CONTRACTOR is responsible to obtain and/or serve as the Certified Operator.

2. Weekly inspections are to be conducted by CONTRACTOR as a minimum, and after every rainfall event. A copy of the inspection report shall be submitted to the agency having jurisdiction, as well as OWNER and ENGINEER.

3. Inspections shall be performed by a person familiar with the site, the nature of the major construction activities, and qualified to evaluate both overall system performance and individual component performance.

4. Inspector must either be someone empowered to implement BMPs in order to increase effectiveness to an acceptable level or someone with the authority to cause such things to happen.

5. Inspector must be certified as a "Storm Water Professional" through the MDEQ storm water training program. Additionally, the inspector shall be properly authorized in accordance with the applicable General Permit to conduct the certified site storm water inspections.

B. Inspection Frequency Reduction:

1. Inspection frequency may be reduced under the following conditions:

a. No active onsite construction activities.

b. Temporary cover has been provided across the entire site and no BMPs remain. Situation: waiting for grass to grow, but grass is dormant.

c. Ground is frozen and/or snow covered.

2. Weekly Storm Water Meeting:

a. A weekly storm water meeting will be held by CONTRACTOR with those involved in ground-disturbing activities to review the requirements of the permits, the SWPPP, and address any problems that have arisen in implementing the SWPPP or maintaining the BMPs.

b. CONTRACTOR shall maintain a log of weekly meetings and document the issues addressed in the meetings on site.

3. Agency Storm Water Inspections:

a. A log of inspections by federal, state, or local storm water or other environmental agencies shall be kept in CONTRACTOR's SWPPP.

b. The log form should include the date and time of visit and whether a report was issued or will be issued as a result of the inspection.

c. Any reports issued will be sent to ENGINEER within 24 hours.

3.10 Project Completion

A. Remove temporary soil erosion and sedimentation control devices as soon as permanent measures have been established.

End of Section

Section 01 7123
Construction Layout

Part 1 General

1.01 Responsibility for Staking

A. OWNER will set stakes and markers showing the locations on the surface of various parts of the Work as outlined herein. Additional stakes shall be provided at the expense of CONTRACTOR.

B. CONTRACTOR shall furnish such labor and assistance as OWNER may require in setting the same.

C. It shall be the responsibility of CONTRACTOR to transfer surface line and grade to the bottom of any tunnel or to the bottom of any other subsurface operations where ordinary surface line and grade is not feasible.

D. CONTRACTOR shall utilize lasers, or surveying instruments run by qualified competent personnel to control the construction installation Work. If the method being used by CONTRACTOR fails to give proper alignment and grade control to the Work, OWNER shall be empowered to order the CONTRACTOR to use such other method(s) as will provide adequate control.

E. ENGINEER may require CONTRACTOR, at CONTRACTOR's expense, to provide such masts, scaffolds, batter-boards, straightedges, templates, or other devices as may be necessary to facilitate laying out, observing and constructing the Work.

1.02 Staking Schedule

A. CONTRACTOR shall submit a completed staking schedule on the form provided by ENGINEER showing the order in which CONTRACTOR proposes to conduct the construction operation prior to the preconstruction meeting. The schedule shall be submitted to ENGINEER a minimum of three (3) working days prior to the start of construction.

B. During construction CONTRACTOR shall to the extent possible, limit unnecessary staking requests and coordinate his construction schedule to provide for the efficient and effective use of the survey crew and eliminate excessive survey crew trips to the site.

1.03 Line and Grade

A. CONTRACTOR shall request, three (3) working days in advance, from ENGINEER additional line and grade stakes as CONTRACTOR may reasonably protect and preserve. Such request by CONTRACTOR shall be on a staking request form.

1.04 Relocation and Re-Establishment

A. Construction Stakes:

1. Where change of location of stakes has been requested by CONTRACTOR, or where CONTRACTOR fails to properly preserve construction survey stakes, such resetting or relocations of stakes shall be done by ENGINEER and paid for by CONTRACTOR on the basis of time and materials for such restaking.

B. Survey Control Points:

1. CONTRACTOR shall bear all expense involved in re-establishing and/or resetting any survey control point, land survey point or monument lost or disturbed during his construction operation. Such Work shall be done under the direct supervision of a licensed land surveyor. Such survey control points shall be marked and flagged by ENGINEER prior to construction.

1.05 Staking Pipelines Laid to Grade

A. One (1) staking: Line and grade points at each structure and at not less than 100-foot (30 m) intervals, with benchmarks at maximum 1/4 mile (400 m) intervals.

1.06 Staking Pipelines Not Laid to Grade

A. One (1) staking: Line points at each structure with 100-foot (30 m) intermediate line points.

1.07 Staking Existing Drainage

A. Unless otherwise indicated on the Plans or specified herein, CONTRACTOR shall bear all expenses including the staking of line and grade required to restore proper grading of surface drainage, including swales and ditches disturbed during the construction operation.

1.08 Staking Earth Work

A. Parks, Parking Lots, or Site Improvement:

1. First staking: Line points at 300-foot (100 m) intervals for clearing and grubbing.
2. Second staking: Final grade points on 100-foot (30 m) grid and grade changes.

B. Site Improvement Paving:

1. First staking: Line points at 300-foot (100 m) intervals for clearing and grubbing.

2. Second staking: Final grade points at 50-foot (20 m) intervals on centerline, perimeter and at grade changes.

C. Ponds:

1. First staking: Line points at 300-foot (100 m) intervals for clearing and grubbing.

2. Second staking: Perimeter dike or bank alignment points offset at corners with two (2) benchmarks onsite.

1.09 Staking Roadway Without Curb and Gutter

A. One (1) staking: Line and grade points for road centerline finish surface at 50-foot (20 m) intervals and at grade changes, points of curve and at 25-foot (10 m) intervals on curves.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 7700
Closeout Procedures

Part 1 General

1.01 Cleaning

A. CONTRACTOR shall perform periodic cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and wind-blown debris, resulting from construction operations.

B. Waste material, debris and rubbish shall be periodically removed from the site and disposed of at legal disposal areas away from the site.

C. Prior to OWNER acceptance CONTRACTOR shall conduct an inspection of sight-exposed interior and exterior surfaces, and all Work areas, to verify that the entire Work is clean.

D. CONTRACTOR shall broom clean exterior paved surfaces and rake clean other exterior surfaces of the site.

1.02 Project Record Documents

A. CONTRACTOR shall deliver one (1) copy of all Specifications, Plans, Addenda, Shop Drawings and Samples, annotated to show all changes made during the construction process, to ENGINEER upon completion of the Work. Submittal of the record documents shall be made with a transmittal letter containing:

1. Date
2. Project Title and Number
3. CONTRACTOR's Name and Address
4. Title and Number of each Record Document
5. Certification that each Document as submitted is complete and accurate
6. Documents shall be submitted in good order and in a legible condition.

1.03 Operation and Maintenance Data

A. Prior to final inspection or acceptance, CONTRACTOR shall fully instruct OWNER's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems specified.

B. Operation and maintenance data required by the individual Specification sections and the manufacturer's operation and maintenance data required in Section 01 3300, Submittal Procedures, shall constitute the basis of such instruction.

1.04 Start Up

A. CONTRACTOR shall coordinate efforts between OWNER, ENGINEER, any equipment manufacturers, subcontractors and governing agencies in the start up of applicable portions of the Work.

1.05 Substantial Completion

A. Certification that the Work is substantially complete shall be in accordance with the General Conditions.

1.06 Final Payment and Acceptance

A. The final inspection, final application for payment and acceptance shall be in accordance with the General Conditions.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01 8900
Site Construction Performance Requirements

Part 1 General

1.01 Scope of Work

A. This Section includes general performance requirements for earthwork complete with, reimbursement for crop damage, removal and disposal of structures and obstructions, protection of existing sewers, tiles and mains; protection of existing building and improvements, protection of trees and other types of vegetation, protection of utility lines, requirements for pavement replacement, restoration of driveways and parking areas, restoration of sidewalks, restoration of lawns and disturbed areas, transportation, and disposal of excess excavation.

1.02 Related Work Specified Elsewhere

A. Section 01 5713: Temporary Erosion and Sediment Control
B. Section 31 2200: Grading
C. Section 31 2333: Trenching and Backfilling
D. Section 32 9219: Seeding

1.03 Reference Standards

A. Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

1. MDOT - Michigan Department of Transportation Standard Specifications for Construction, latest edition.

1.04 Requirements of Regulatory Agencies

A. CONTRACTOR shall comply with Section01 5713, Temporary Erosion and Sediment Control. CONTRACTOR, at his expense, shall secure all permits, and post all bonds or deposits required to comply with the "Soil Erosion and Sedimentation Control," requirements, being Part 91 of PA 451 of 1994 as amended.

B. CONTRACTOR shall provide, maintain and remove such temporary and/or permanent soil erosion and sedimentation control measures as specified on the Plans or as determined by ENGINEER.

1. Measures shall prevent surface runoff from carrying excavated materials into the waterways, to reduce erosion of the slopes, and to prevent silting in of waterways downstream of the Work.

2. Measures should include provisions to reduce erosion by the wind of all areas stripped of vegetation, including material stockpiles.

1.05 Submittals

A. Written permission for the use of all disposal and borrow sites shall be obtained and copies shall be furnished to ENGINEER.

1.06 Protection of Plant Life

A. Trees, shrubs, and other types of vegetation not within the limits of the Work or not designated on the Plans or by ENGINEER to be removed, shall be carefully protected from damage or injury during the various construction operations.

B. Any tree, shrub or other type of vegetation not designated to be removed but which is damaged by CONTRACTOR's operation shall be repaired or replaced by CONTRACTOR, at his expense, as determined by ENGINEER.

1.07 Protection of Existing Structures and Improvements

A. existing culverts, sewers, drainage structures, manholes, water gate wells, hydrants, water mains, utility poles, overhead lines, underground conduits, underground cables, pavement, or other types of improvements within the construction limits, not designated on the Plans to be removed, shall be carefully protected from damage during the construction operations.

B. Existing structure or improvement not designated to be removed, but which is damaged by CONTRACTOR's operations shall be repaired or replaced by the CONTRACTOR, to the satisfaction of the owner, at his expense.

C. Deposits of dirt or debris in sewers, culverts, tiles, drainage structures, manholes, gate wells, etc. caused by CONTRACTOR shall be cleaned out at the CONTRACTOR's expense.

1.08 Maintaining Drainage

A. Existing open drains, field and roadway ditches, drainage tile, sewers, enclosed drains, natural and artificial watercourses, surface drainage or any other types of drainage within the limits of the Work shall be maintained and free to discharge during construction.

B. Drainage facility not designated to be abandoned, but which is damaged, or any drainage interrupted by the CONTRACTOR's operation shall be immediately repaired, replaced, or cleared by the CONTRACTOR.

C. Costs incurred shall be incidental to the excavating, backfilling and compacting or grading operations.

Part 2 Products

2.01 Granular Material

A. Bank run sand meeting the requirements of MDOT, Granular Material Class II.

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2.02 Aggregate for Shoulders, Parking Areas, Driveways or Roads

A. Crushed Limestone, Natural Aggregate or Slag and meeting the requirements of MDOT Section 902.

Part 3 Execution

3.01 General

A. The various construction operations shall be restricted to the existing right-of-way or the areas indicated on the Plans. If CONTRACTOR requires additional area, CONTRACTOR shall

furnish the ENGINEER with written permission obtained from the property owner for any part of the operations he conducts outside of the right-of-way or limits indicated.

3.02 Existing Improvements

A. CONTRACTOR shall expose existing sewers and structures to which the new Work is to be connected and notify ENGINEER of same. ENGINEER will verify the vertical and horizontal locations of the existing system and shall inform CONTRACTOR as to the necessary adjustments required to align the new Work with the existing system.

3.03 Existing Utilities

A. When existing utilities are shown on the Plans, their locations are approximate only, as secured in the field investigation and/or from available public records. CONTRACTOR, prior to the start of construction, shall contact Miss Dig and the public agency or utility having jurisdiction to request the verification of all utilities within the construction area.

B. When existing utility lines, structures or utility poles are encountered during the performance of the Work, CONTRACTOR, at his expense, shall perform his operations in such a manner that the service will be uninterrupted.

C. CONTRACTOR shall expose all existing utility lines prior to any excavation operation, to determine any conflict with the proposed improvement. CONTRACTOR shall be responsible for any relocation required as a result of any conflict of existing utilities shown on the plans, with the proposed improvement.

D. Should it become necessary to move any utility structure, line or pole shown on the Plans or otherwise found necessary to be moved, CONTRACTOR shall make all arrangements with OWNER of the utility for the moving. costs incurred for such moving shall be at CONTRACTOR's expense unless indicated otherwise. However, before disturbing a utility line, structure or pole, CONTRACTOR shall furnish ENGINEER with satisfactory evidence, in writing, that proper arrangements have been made with the owner of the utility.

3.04 Utility Poles

A. CONTRACTOR shall be responsible for any removal or relocation required as a result of any conflict of existing utility poles (including street light poles, guy poles, telephone poles, etc.) with proposed improvements.

B. CONTRACTOR shall make all arrangements for removing or relocating utility poles with the owner of the utility pole.

C. Prior to disturbing any utility pole, CONTRACTOR shall provide ENGINEER with written evidence that proper arrangements have been made with the owner of the utility pole.

D. When required by the Work, CONTRACTOR shall temporarily support poles in the vicinity of the Work at no additional cost to OWNER. Support shall be in accordance with and to the satisfaction of the utility company.

3.05 Existing Sewers, Tile, and Mains

A. Existing sanitary sewers, storm sewers, drain tile, septic tank bed tiles, water mains or building services or leads, that are encountered during the performance of the Work that require relocation or are damaged, shall be restored with new materials equal in quality and type to the materials encountered.

B. New material shall be installed as specified in the Contract Documents and per the requirements of the local agencies. Bedding and backfill material, unless otherwise specified, shall be an approved Class II granular material, compacted to 98% of its maximum unit weight.

C. Seepage bed tile and water mains shall be replaced in accordance with the requirement of the agency having jurisdiction.

D. Relocation or protection of existing sewers, tiles, tile field, water mains or building services and leads shall be at CONTRACTOR's expense, unless otherwise indicated in the Contract Documents.

3.06 Existing Structures

A. Existing surface and subsurface structures may be shown on the Plans, in locations considered most probable from information secured in the field investigation or from available public records.

B. Neither the correctness nor completeness of such information is guaranteed or implied.

C. Structures shall be protected, preserved or restored by CONTRACTOR, to the satisfaction of the structure owner, at no additional cost to the Project.

3.07 Existing Buildings

A. Existing buildings or structures may be encountered throughout the Project within limits of the presently established right-of-way or easement. Good construction methods and procedures shall be employed by CONTRACTOR, at his expense, to protect the structures.

B. When it becomes necessary for CONTRACTOR to move one of these buildings or structures in order to proceed with construction, CONTRACTOR, at his expense, shall exercise all due care in moving the building or structure to prevent undue damage.

C. Prior to moving an existing building or structure, CONTRACTOR shall furnish ENGINEER with satisfactory evidence, in writing, that proper arrangements have been made with the owner.

D. Unless otherwise specified in the Contract Documents, the length of the move shall be maintained to a minimum which will allow for construction of the improvement.

3.08 Removal of Sewers and Culverts

A. Unless otherwise specified in the Contract Documents, CONTRACTOR, at his expense, shall remove any abandoned culvert, pipe, sewer, structure or part of a structure which is to be replaced or rendered useless by the new construction.

B. When a sewer or culvert is removed at a structure, ONTRACTOR shall install a masonry bulkhead in the structure.

C. Removal of a culvert or sewer also includes the removal and disposal of end treatments or headwalls.

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3.09 Removal of Structures

A. Removal of existing structures shall consist of removing and salvaging the existing frame and cover. The ends of the existing pipe shall be plugged and braced. The complete structure shall be removed entirely and disposed of. The excavation shall be backfilled with sand and compacted to 98% of its maximum unit weight. Maximum unit weight shall be determined by ASTM D698, Method B.

B. If a structure is to be removed from a system that is to remain in service, a bypass system, approved by ENGINEER, shall be installed and maintained by the CONTRACTOR, during the rebuilding period.

3.10 Abandoning Structures

A. Structure shall be broken down to at least 30 inches (750 mm) below the subgrade.

B. Pipes connected to the structure shall be plugged with a brick, masonry or concrete bulkhead approved by ENGINEER.

C. Structure shall be backfilled with flowable fill to 1-foot (300 mm) above the pipes and the remainder of the structure backfilled with sand-cement mixture at a 10 to 1 ratio to subgrade elevation or to 1-foot (300 mm) below finished grade.

D. The remainder of the excavation shall be backfilled with a granular material, compacted to 98% of its unit weight, and shall meet with the approval of ENGINEER.

E. Maximum unit weight shall be determined by ASTM D698, Method B.

3.11 Salvaged Material

A. Salvaged materials shall become the property of CONTRACTOR unless otherwise specified in the Contract Documents, and shall be disposed of by CONTRACTOR, at his expense.

3.12 Trees

A. Trees excepting those specified on the Plans to be removed, shall be effectively protected by CONTRACTOR during his construction operations.

1. If in the opinion of ENGINEER, the methods of protection employed by CONTRACTOR are not adequate, CONTRACTOR shall carry on his operation by tunneling, or by other approved means, which will not cause undue damage to the trees.

3.13 Remove and Replace Tree

A. Tree removal and replacement may be accomplished in two ways:

1. CONTRACTOR may completely remove and dispose of the existing trees, and after the new improvement has been completed, tested, accepted and rough grading has been completed, CONTRACTOR shall plant new trees, in approximately the same location as the existing trees, of size and species per the following (existing trees to be replaced with like specie):

a. “Acer Rubrum” October Glory Red Maple, 2 ½-inch B&B (min)

b. "Malus Centzam" Centzam Crabapple, 2-inch B&B (min)

c. "Crataegus Phaenaopyrum" Washington Hawthorn, 8-foot B&B (min)

d. "Pinus Nigra" Austrian Pine, 6-foot B&B (min)

e. "Picea Pungens" Colorado Spruce, 5-foot B&B (min)

f. "Quercus Rubra" Red Oak, 2 ½-inch B&B (min)

g. "Pyrus Calleryana" Redspire Pear, 2-inch B&B (min)

2. CONTRACTOR may remove and preserve the existing trees.

a. The trees shall be properly cared for and maintained in a healthy condition.

b. After the new improvement has been installed, tested, accepted and rough grading completed, the trees shall be replanted in approximately the same location. Any trees damaged, destroyed or which die, shall be replaced at no additional cost.

c. Trees, whether replanted or planted new, shall be guaranteed for a period of two years from the date of substantial completion.

3.14 Removing Pavement

A. Removal of concrete and bituminous pavement as called for on the Plans shall consist of removing and disposing of pavement and shall include base courses, surface courses, integral and separate curbs, integral and separate curb and gutters, sidewalks and end headers.

B. Pavement shall be removed to an existing joint or cut parallel to the existing pavement joints.

C. Cutting shall be accomplished by using a power-driven concrete saw approved by ENGINEER. Depth of the saw cut shall be a minimum of 6-inches, to insure that the removal of the old pavement will not disturb or damage the section of pavement remaining in place.

D. Residual concrete pavement shall not be less than five feet measured transversely, nor less than 6 feet longitudinally measured from a joint.

E. In removing a concrete base course, where part of the existing bituminous surface is to remain in place, the bituminous surface shall be cut the full depth by the use of a power-driven saw, approved by ENGINEER along a line parallel to and at least one foot from either side of the base course removal.

F. Old pavement with a concrete cap shall be considered as only one (1) pavement, whether or not there is a separation layer of earth, aggregate, or bituminous material between the old material and the concrete cap.

1. Removal of Curb for Curb Drop:

a. Where curb is to be removed for a curb drop, the operation shall be performed by saw cutting or by cold milling, approved by ENGINEER, so

as to leave a neat surface with a maximum 1-inch lip, without damage to the underlying pavement.

2. Removal of Curb and Gutter:

a. Where curb and gutter are to be removed, the operation shall be performed by saw cutting. The limits of the removal shall be as called for on the Plans, or as approved by ENGINEER. However, in no case shall the width of removal be less than 18 inches for sections with rolled or straight curb or less than 24 inches for mountable curbs.

G. If during the pavement removal operation any concrete or bituminous pavement or surfacing is damaged beyond the removal limits designated, the damaged pavement or surfacing shall be removed and replaced at CONTRACTOR's expense.

H. Earth which may be removed during the pavement removal operation shall be replaced by backfilling to the proposed subgrade with a suitable material, approved by ENGINEER, at CONTRACTOR's expense.

3.15 Holes

A. Earth removed during any phase of the excavation or removal operations, resulting in a hole or void, shall be replaced by backfilling to the proposed subgrade with a suitable granular material. Material shall be placed by the controlled density method or other effective means having the approval of ENGINEER and shall be compacted to 95% of maximum unit weight.

B. Furnishing, placing and compacting of the backfill material shall be at CONTRACTOR's expense.

3.16 Restoration in Right-of-Way and Yard Areas

A. Right-of-way and yard areas not paved or aggregate surfaced shall be restored in accordance with the type and location specified herein unless indicated otherwise on the Plans. Disturbed areas may be shaped by "Machine Grading" or another method approved by ENGINEER to achieve the cross section, line and grade shown on the Plans. Areas where slopes are 1 on 4 or flatter shall be restored with topsoil, seed and mulch. Slopes steeper than 1 on 4 shall be restored with sod.

B. Excess material from the restoration operation shall be disposed of by CONTRACTOR at his expense.

C. Disturbed areas shall be graded to receive either topsoil and seed or topsoil and sod. Topsoil, seed, sod, fertilizer and mulch shall conform to the requirements specified on the Plans and in Section 32 9219, Seeding, or Section 32 9223, Sodding.

D. CONTRACTOR, at his expense, shall furnish, place, and compact any additional fill, meeting the approval of ENGINEER, needed to restore the disturbed areas to the cross sections called for on the Plans or as determined by ENGINEER.

3.17 Restoration of Aggregate Surfaces

A. Shoulders:

1. Shoulder shall be regarded as the area between the edge of pavement and the ditch, or the area within 10 feet of the pavement, whichever is the lesser.

2. Backfilling of trenches in the shoulder area shall be carried to within 5 inches of the existing surface as specified under Trench “A" or Trench "B." The remaining depth shall be backfilled with a minimum of 5 inches of compacted 22A or 23A aggregate with calcium chloride applied, at the rate of 6 pounds per Ton of aggregate .

3. CONTRACTOR, at his expense, shall furnish, place and compact all materials necessary to complete the backfilling and restoration operation within the shoulder area.

B. Driveways and Parking Areas:

1. Aggregate driveway areas shall be regarded as the area from the right-of-way line to the edge of the traveled roadway and shall include the shoulder area.

2. Backfilling of trenches crossing aggregate surfaced driveways and parking areas shall be carried to the bottom of the proposed base course as specified under Trench “B”. The remaining depth shall be backfilled with a minimum of 6 inches of compacted 22A or 23A aggregate, with calcium chloride applied at the rate of 6 pounds per Ton of aggregate.

3. Aggregate surfaced areas beyond the limits of the actual excavation which are disturbed, as determined by ENGINEER, by such operations as temporary storage of materials or passage of equipment, shall be resurfaced, at CONTRACTOR's expense.

   a. Upper 3 inches of disturbed areas shall be removed as necessary to allow the final elevation of the resurfacing course to be at the elevation of the drive or parking area which existed prior to excavation.

   b. Disturbed area shall be resurfaced with a minimum of 3 inches of compacted 22A or 23A aggregate, with calcium chloride applied at the rate of 6 pounds per Ton of aggregate

4. CONTRACTOR, at his expense, shall furnish, place, and compact all materials necessary to complete the backfilling and restoration operations within the driveway and parking area.

C. Roads and Streets:

1. Backfilling of trenches crossing aggregate surfaced roads or streets shall be carried to within 12 inches of the existing surface as specified under Trench "B." The remaining depth shall be backfilled with two 6-inch layers of compacted 22A or 23A aggregate, with calcium chloride applied at the rate of 6 pounds per Ton of aggregate.

2. CONTRACTOR, at his expense, shall furnish, place, and compact all materials necessary to complete the backfilling and restoration operations within the roadway or street area.

3. Also, any settlement of the aggregate surface shall be restored by placing additional aggregate, up to the original grade, and shall be done at the CONTRACTOR's expense.

D. Compaction:

1. Compaction of all aggregate shall be performed by a pneumatic-tired roller or a vibratory compactor until the material forms a stable surface.

3.18 Restoration of Paved Surfaces

A. CONTRACTOR, at his expense, shall provide the materials necessary to complete the backfilling and restoration operations, which shall include furnishing, compacting, forming, placing, rolling, floating, jointing, finishing, curing and providing protection against elements.

B. Restoration of any roadways that are partially damaged shall include a minimum replacement of one (1), full width lane of roadway. The length of replacement shall be at least equal to the width.

C. Bituminous:

1. Backfilling of trenches crossing bituminous driveways, sidewalks, roads, streets or parking areas shall be carried to the bottom of the base course as specified under Trench "B."

2. Bituminous pavement or bituminous surface course with an aggregate base shall be replaced in accordance with Section 32 1216, Bituminous Paving.

3. Bituminous surfaced areas beyond the limits of the actual excavation which are disturbed by such operations, as temporary storage of materials or passage of equipment, shall be resurfaced with an approved bituminous mixture the same thickness as removed, but in no case less than 2 inches in thickness. Replacement material shall extend to smooth-cut edges, shall be uniform in direction and shall be at an elevation which provides a uniform surface between the undisturbed abutting surfaces.

4. Restoration of any bituminous chip seal shoulders that are damaged or partially damaged, as determined by ENGINEER, shall include complete replacement full width and length (extending a minimum of 25 linear feet beyond the damaged area both ways). Existing bituminous chip seal shoulders shall be brought to proper grade with compacted 22A or 23A aggregate and resurfaced with a double chip seal per Section 32 1216, Bituminous Paving.

3.19 Soil Erosion and Sedimentation Control

A. CONTRACTOR shall comply with the requirements of Section 01 5713, Temporary Erosion and Sediment Control. Prior to commencing any type of earthwork, CONTRACTOR shall obtain a Soil Erosion and Sedimentation Control permit from the local enforcing Agency.

B. CONTRACTOR, at his expense, shall obtain all approvals, secure all permits and post all bonds and deposits required to comply with the Soil Erosion and Sedimentation Control Act, Part 91 of PA 451 of 1994, as amended, and those of the enforcing agency.

C. CONTRACTOR shall provide ENGINEER with a copy of the soil erosion permit issued by the local enforcing agency for the Project, prior to commencing any type of earthwork on the Project.

3.20 Excess Excavation

A. Excess excavation shall be defined as all surplus earth material realized from the construction that is free of brush, roots, stumps, broken concrete, pipe, debris, and other extraneous material.

B. CONTRACTOR, when requested by OWNER, shall transport all excess excavation to a site(s) designated by OWNER.

1. Excess excavation shall be graded by CONTRACTOR to provide positive surface drainage of the site(s).

C. Grading shall be done such that adjacent properties are not damaged or affected. The grading shall include removal of all surface irregularities to provide a smooth surface (± 0.25 foot). When the excess excavation has not been requested by e OWNER, CONTRACTOR shall remove and properly dispose of the material at no additional cost to OWNER.

D. Proper disposal of all excess excavation, including transportation, grading, and protection of adjacent properties shall be considered as a final cleanup item. No additional payment will be made for this item.

E. Brush, roots, stumps, broken concrete, pipe, debris, and other extraneous material from the construction shall become the property of CONTRACTOR, and shall be disposed of per all applicable Laws, rules or regulations. Removal and disposal of this material shall be considered as part of final cleanup. No additional payment will be made for this item.

F. OWNER approval of the final site(s) condition in writing will be required prior to final payment authorization.

End of Section

Division 31
Earthwork

Section 31 1100
Clearing and Grubbing

Part 1 General

1.01 Scope of Work

A. This section includes all clearing and grubbing work indicated on the Plans and as required, complete with cutting and removal of trees, shrubs, vegetation, stumps, logs, brush, roots and undergrowth, and disposal of materials.

1.02 Related Work Specified Elsewhere

A. Section 01 5713: Temporary Erosion and Sediment Control
B. Section 01 8900: Site Construction Performance Requirements
C. Section 31 2200: Grading
D. Section 31 2313: Subgrade Preparation

1.03 Soil Erosion and Sedimentation Control

A. CONTRACTOR, at his expense, shall provide, maintain and remove such temporary and/or permanent soil erosion and sedimentation control measures as specified on the Plans or as determined by ENGINEER.

B. Measures shall prevent surface runoff from carrying excavated materials into the waterways, to reduce erosion of the slopes, and to prevent silting in of waterways downstream of the Work.

C. Measures should include provisions to reduce erosions by the wind of all areas stripped of vegetation, including material stockpiles.

D. Comply with requirements of Section 01 5713, Temporary Erosion and Sediment Control.

Part 2 Products (Not Used)

Part 3 Execution

3.01 Clearing

A. Trees, stumps, brush, hedges, and other vegetation occurring within the contract limits as defined on the Plans or as directed by ENGINEER shall be cut off flush with the ground and shall be completely removed.

3.02 Clearing and Grubbing

A. Trees, stumps, brush, shrubs, hedges, roots, corduroy, logs, matted roots, other vegetation and debris occurring within the contract limits as defined on the Plans or as directed by ENGINEER, shall be completely removed. Depth of removal shall be in accordance with Article 3.04 or 3.05.

B. Selective clearing shall consist of removing and disposing of dead, diseased, poorly formed, or otherwise undesirable trees, undergrowth, stumps, uprooted trees and debris. Trees to be removed will be marked and the area where the undergrowth is to be removed will be indicated on the Plans or designated by ENGINEER.

1. Selective Clearing, Type I:

a. Trees and stumps shall be cut off at an elevation not more than four (4) inches (100 mm) above the existing ground level.

2. Selective Clearing, Type II:

a. Trees and stumps shall be chipped or ground down to an elevation approximately four (4) inches (100 mm) below proposed ground level.

3.03 Depth of Removal in Excavation Area

A. For excavation areas within roadways, parking lots, and other paved areas, the trees, stumps, and roots shall be removed to a depth of not less than 12 inches (300 mm) below the subgrade elevation.

B. In all other excavation areas, the trees, stumps, and roots shall be removed to a depth of not less than 12 inches (300 mm) below the finish surface elevation, or as indicated on the Plans or as designated by ENGINEER.

3.04 Depth of Removal in Embankment Areas

A. Within embankment areas for roadways, parking lots, and other paved areas where the top of road material is five (5) feet (1.5 m) or less in height above the existing ground, the trees, stumps, and roots shall be removed to a depth of not less than 12 inches (300 mm) below the existing ground.

B. Within embankment areas for roadways, parking lots, and other paved areas where the top of road material is more than five (5) feet (1.5 m) in height above existing ground, the trees and stumps shall be cut off flush with the existing ground surface.

C. For embankment areas other than roadways, parking lots, and other paved areas, the trees and stumps shall be cut off flush with the existing ground surface, or as indicated on the Plans or as designated by ENGINEER.

3.05 Removal of Trees, Stumps, and Other Vegetation

A. Where trees cannot be felled without danger to traffic or injury to other trees, structures or property, they shall be cut down in sections.

B. Removal of stumps and roots may be accomplished by the use of a shredding machine meeting the approval of ENGINEER.

3.06 Removing Corduroy

A. Logs, stumps, poles, brush, and other unsatisfactory material occurring in the contract limits at or below the surface of the ground and within the depth of four (4) feet (1.2 m) below the proposed plan grade shall be removed and shall be disposed of by the CONTRACTOR.

B. When material is disposed of outside of the contract limits, disposal shall be as specified in Section 01 8900, Site Construction Performance Requirements.

C. Burial of trees, stumps and other vegetation, will not be permitted, except at disposal areas indicated on the Plans or as determined by ENGINEER. Trees and stumps buried in these areas shall have a minimum cover of two (2) feet (0.6 m).

3.07 Holes and Trenches

A. Holes and trenches remaining after the clearing or grubbing operations in embankment areas, shall have the sides broken down or leveled, and shall be refilled with acceptable material.

1. Material shall be moistened and properly compacted in layers by tampers or rollers to the density required under roadways, parking areas, and other special areas, as determined by ENGINEER.

2. The same construction procedure shall be applied to all holes and trenches remaining in excavation areas where the depth of holes exceeds the depth of proposed excavation.

3.08 Salvaging Timber

A. Trees required to be removed and having a diameter of four (4) inches (100 mm), or more, are classed as merchantable timber. On right-of-way, fee simple, merchantable timber shall become the property of CONTRACTOR, unless otherwise specified in the Contract Documents. When such material is placed outside of the right-of-way, CONTRACTOR shall obtain and provide ENGINEER with written permission from owner of the property on which the timber is to be placed.

B. Merchantable timber to be removed from areas outside of right-of-ways, fee simple, shall be cut and piled for the use of property owner, except where CONTRACTOR provides ENGINEER with a written agreement from the property owner that he does not desire the salvaged timber. Where the property owner has signed such an agreement, the salvaged timber will become the property of CONTRACTOR.

C. When such material is placed outside the contract limits, CONTRACTOR shall obtain and provide ENGINEER with written permission from the owner of the property on which the timber is to be placed. Timber from 4 to 12 inches (100 to 300 mm) in diameter may be left in full tree lengths or cut to commercial lengths, at the option of CONTRACTOR. Timber 12 inches (300 mm), or more, in diameter shall be cut into commercial lengths and piled separately from other timber.

End of Section

Section 31 2200
Grading

Part 1 General

1.01 Scope of Work

A. This Section includes site grading as indicated on the Plans, complete with removing and salvaging topsoil, rough grading, finish grading, adjusting structures, and reconstructing structures.

1.02 Related Work Specified Elsewhere

A. Section 01 5713: Temporary Erosion and Sediment Control
B. Section 01 8900: Site Construction Performance Requirements
C. Section 31 1100: Clearing and Grubbing
D. Section 31 2313: Subgrade Preparation
E. Section 32 9219: Seeding

1.03 Soil Erosion and Sedimentation Control

A. CONTRACTOR, at his expense, shall provide, maintain and remove such temporary and/or permanent soil erosion and sedimentation control measures as specified on the Plans or as determined by ENGINEER.

B. Measures shall prevent surface runoff from carrying excavated materials into the waterways, to reduce erosion of the slopes, and to prevent silting in of waterways downstream of the Work.

C. Measures should include provisions to reduce erosion by the wind of all areas stripped of vegetation, including material stockpiles.

D. Comply with requirements of Section 01 5713, Temporary Erosion and Sediment Control.

Part 2 Products (Not Used)

Part 3 Execution

3.01 Site Grading

A. Sites shall be graded as specified on the Plans or as determined by ENGINEER. CONTRACTOR shall carry out the grading operation to prevent standing water and soil saturation detrimental to structures and improvements.

B. Provisions shall be made to preserve and protect trees and other vegetation specified on the Plans or determined by ENGINEER as not to be removed.

3.02 Removing and Salvaging Topsoil

A. Topsoil encountered along the route of the construction shall be pushed back and preserved for use in restoration following completion of the construction.

B. Topsoil must remain on each given parcel and lot throughout the Project including the existing road right-of-way adjoining the parcel or lot where it existed.

C. Removal of topsoil from the Project or movement of topsoil from one portion of the Project for use in another portion of the Project will not be allowed.

D. If there is insufficient working area, the topsoil may be removed, stockpiled and later replaced on the original lot or parcel. CONTRACTOR shall furnish ENGINEER with written permission obtained from the property owner of the property on which the topsoil is to be stockpiled, prior to commencing the stockpiling operation.

E. Topsoil shall be salvaged in an amount equivalent to the quantity required by the Plans. Topsoil salvaged in excess of that required by the Plans or as required by ENGINEER will be disposed of by CONTRACTOR at his expense.

F. Before removing topsoil, all vegetation shall be reduced to a height of approximately four inches (100 mm) and all such vegetation and all brush, stones, rocks, and any other objectionable litter or foreign material shall be removed and disposed of before the ground is broken for topsoil removal.

G. Equipment and methods of operations shall be such as to avoid the lifting of the subsoil. If soil or weather conditions are unsuitable, CONTRACTOR shall cease stripping until stripping can resumed in a suitable manner.

H. Topsoil shall be removed within the grading limits for cuts and shall be removed to a width and depth specified on the Plans or as determined by ENGINEER.

I. Topsoil shall be stockpiled within the limits of construction in areas designated on the Plans, or in areas out of the way of construction as determined by CONTRACTOR. Stockpiles shall be located and shaped so as to avoid diversion of storm water runoff, either in or out of the limits of construction, towards buildings, creation of standing water or interference of controlled irrigation. CONTRACTOR shall not place topsoil around trunks and root areas of trees to be preserved.

J. Topsoil shall be kept separate from other excavated materials that are to be used for embankment and shall be completely removed from any designated area prior to the beginning of regular excavation or placing embankment in the area.

K. Topsoil stockpiles shall be located as near the original location as possible and no payment will be made for overhaul.

L. After the completion of construction, the topsoil shall be screened through a 5/8-inch maximum size mesh screen, spread, graded, raked and prepared for seeding or sodding.

3.03 Existing Sand Onsite

A. In those instances where the construction takes place within private easements, the sand shall not be removed from each parcel or lot. Sand encountered in existing road right-of-way may be used for construction purposes throughout the Project providing it meets the requirements for the material it is intended to be used for.

B. Removal of sand from the Project will not be allowed, except for the volume displaced by the new construction.

C. If there is insufficient working area, the sand may be removed, stockpiled and replaced on the original lot or parcel. CONTRACTOR shall furnish ENGINEER with written permission obtained from the property owner of the property on which the sand is to be stockpiled, prior to commencing the stockpiling operations.

3.04 Rough Grading

A. Site shall be graded as necessary to comply with the Plans or as determined by ENGINEER. The subgrade shall be roughly established by cut or fill, approximately parallel to proposed finished grades and to elevations which allow for thickness of topsoil and installation of site or roadway improvements.

B. In fill areas all debris shall be removed from the area to be filled. Material detrimental to site improvement shall be removed from the site and acceptably disposed of as specified in Section 01 8900 Site Construction Performance Requirements.

C. Original ground shall be scarified and benched or otherwise treated to provide adequate bond and to prevent slippage of fill.

D. Fill material shall be free of debris or other detrimental material and shall have a moisture content within 2 percent of optimum moisture when placed. All fill shall be compacted to a density not less than 95% of the maximum unit weight and placed in layers no less than nine inches (230 mm) and no greater than 15 inches (380 mm). The maximum unit weight shall be determined by ASTM D698, Method B.

E. If possible fills or embankments shall be constructed when the ground is frost-free and there is favorable weather. However if winter grading is necessary, all ice and snow shall be removed from the surface of the ground before the fill or embankment is placed. No frozen material will be allowed in the fill area or in the embankment being constructed. Any frozen material on a partially completed fill shall be removed before placing any more fill. Frozen material shall be stockpiled outside the grading limits until thawed. Thawed material from the stockpiled frozen material may be used in the fill and embankment areas.

3.05 Finish Grading

A. General:

1. Subgrade shall be smoothed parallel to proposed finished grades and elevations specified on the Plans. The subgrade shall be scarified to assure bond with the topsoil prior to spreading of the topsoil.

2. Topsoil shall be spread uniformly to provide a smooth, even surface at a finish grade specified on the Plans or acceptable to ENGINEER. After spreading, the topsoil shall be compacted lightly as necessary to minimize settlement. Final grades shall not vary more than one-tenth of a foot (30 mm) from the elevations indicated on the Plans.

3. Finished grading shall be done when the ground is frost-free and weather is favorable.

B. Adjust Structures:

1. Structures to be adjusted shall be as called for on the Plans or as indicated by ENGINEER.

2. Adjustment of structures shall apply where the elevation of the casting is either raised 12 inches (300 mm) or less, or lowered six (6) inches (150 mm) or less.

C. For Rehabilitation/Resurfacing Projects:

1. For structures in existing pavement, the pavement shall be sawcut a minimum of 5-foot by 5-foot unless otherwise shown on the plans.

2. For structures in concrete pavement, the structure shall be adjusted, backfilled and compacted as noted below.

3. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed concrete pavement.

4. In areas of new concrete pavement, the concrete pavement around the structure shall be poured integral with the rest of the pavement.

5. For resurfacing projects, expansion or epoxy anchored hook bolts shall be placed 18-inches on center around the edges of the existing concrete pavement, unless otherwise shown on the plans.

6. Concrete pavement, minimum 8-inches thick, shall be replaced around the structure to the grade of the adjoining concrete pavement.

7. For structures in bituminous pavement, the pavement shall not be sawcut until after the bituminous base or leveling courses have been completed.

8. Structure shall be adjusted, backfilled and compacted as noted below.

9. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed pavement.

10. A minimum of 8-inches of concrete pavement, unless otherwise noted on the plans, shall be placed to the elevation of the adjoining bituminous base or leveling courses.

11. The bituminous wearing course around the structure shall be placed integral with the wearing course on the remainder of the project.

D. For Bituminous Reconstruction or New Construction Projects:

1. Frame and cover on all new and existing structures shall be removed and the structure plated prior to placing the bituminous base or leveling courses.

2. Bituminous base and leveling courses shall be placed over the plated structures.

3. Prior to placing the bituminous wearing course, the bituminous base and leveling courses shall be sawcut a minimum of 5-foot by 5-foot unless otherwise shown on the plans.

4. Structure shall be adjusted, backfilled and compacted as noted below.

5. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed pavement.

6. A minimum of 8-inches of concrete pavement, unless otherwise noted on the plans, shall be placed to the elevation of the adjoining bituminous base course.

7. Bituminous wearing course around the structure shall be placed integral with the wearing course on the remainder of the project.

8. Sawcutting, removal and replacement of concrete and bituminous pavement, and aggregate base course, shall be incidental to the adjusting the structure unless otherwise noted in the Contract Documents.

9. Existing frame and cover shall be carefully removed and stored, and shall be reinstalled on the same structure, unless a new frame and cover are called for on the Plans.

10. Brick courses or concrete adjustment rings shall be removed or installed as necessary to adjust the structure's frame and cover to the proper elevation.

11. Brick or concrete adjustment rings shall be set in mortar or installed as shown on the Plans and as determined by ENGINEER.

12. Outside surface of the new brick or block structures shall receive a masonry plaster coat, a minimum of 1/2 inch (10 mm) thick.

13. Structure shall be properly backfilled with Class II granular material, compacted in place, and meeting the approval of ENGINEER.

14. Flow in the entire system shall be maintained, at CONTRACTOR's expense, while performing any part of the Work. Also, the structure shall be cleaned and all unsuitable material shall be disposed of at CONTRACTOR's expense.

3.06 Reconstruct Structures

A. General:

1. Structures to be reconstructed shall be as called for on the Plans or as determined by ENGINEER.

2. Reconstruction of structures shall apply where the elevation of the casting must be raised in excess of 12 inches (300 mm), lowered in excess of six (6) inches (150 mm), or to rebuild portions of the existing structure which are deteriorated.

B. For Rehabilitation/Resurfacing Projects:

1. For structures in existing pavement, the pavement shall be sawcut a minimum of 5-foot by 5-foot unless otherwise shown on the plans.

2. For structures in concrete pavement, the structure shall be reconstructed, backfilled and compacted as noted below.

3. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed concrete pavement.

4. In areas of new concrete pavement, the concrete pavement around the structure shall be poured integral with the rest of the pavement.

5. For resurfacing projects, expansion or epoxy anchored hook bolts shall be placed 18-inches on center around the edges of the existing concrete pavement, unless otherwise shown on the plans.

6. Concrete pavement, minimum 8-inches thick, shall be replaced around the structure to the grade of the adjoining concrete pavement.

7. For structures in bituminous pavement, the pavement shall not be sawcut until after the bituminous base or leveling courses have been completed.

8. Structure shall be reconstructed, backfilled and compacted as noted below.

9. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed pavement.

10. A minimum of 8-inches of concrete pavement, unless otherwise noted on the plans, shall be placed to the elevation of the adjoining bituminous base or leveling courses.

11. Bituminous wearing course around the structure shall be placed integral with the wearing course on the remainder of the project.

C. For Bituminous Reconstruction or New Construction Projects:

1. Frame and cover on new and existing structures shall be removed and the structure plated prior to placing the bituminous base or leveling courses.

2. Bituminous base and leveling courses shall be placed over the plated structures.

3. Prior to placing the bituminous wearing course, the bituminous base and leveling courses shall be sawcut a minimum of 5-foot by 5-foot unless otherwise shown on the plans.

4. Structure shall be reconstructed, backfilled and compacted as noted below. Six inches of aggregate base course, unless otherwise noted on the plans, shall be placed below the proposed pavement.

5. A minimum of 8-inches of concrete pavement, unless otherwise noted on the plans, shall be placed to the elevation of the adjoining bituminous base course.

6. Bituminous wearing course around the structure shall be placed integral with the wearing course on the remainder of the project.

7. Sawcutting, removal and replacement of concrete and bituminous pavement, and aggregate base course, shall be incidental to the reconstructing the structure unless otherwise noted in the Contract Documents.

8. Existing frame and cover shall be carefully removed and stored, and shall be reinstalled on the same structure unless a new frame and cover are called for on the Plans.

9. Existing corbel entrance sections or precast concrete chimney type entrance shall be removed along with any additional brick courses or precast concrete sections necessary to achieve the amount of reconstruction called for on the Plans or as determined by ENGINEER.

10. The necessary brick work and precast concrete sections shall be installed to meet the design grade.

11. Manhole steps shall be furnished and shall be installed, as necessary, so that maximum spacing is 24-inches (600 mm).

12. Brick or concrete adjustment rings shall be set in mortar or installed as shown on the Plans and as determined by ENGINEER.

13. Outside surface of the new brick or block structures shall receive a masonry plaster coat, a minimum of 1/2 (10 mm) inch thick.

14. Structure shall be properly backfilled with Class II granular material, compacted in place, and meeting the approval of ENGINEER.

15. Flow in the entire system shall be maintained, at CONTRACTOR's expense, while performing any part of the Work.

16. Structure shall be cleaned and all unsuitable material shall be disposed of at CONTRACTOR's expense.

End of Section

Section 31 2313
Subgrade Preparation

Part 1 General

1.01 Scope of Work

A. This Section includes preparing subgrade for pavement construction complete with excavation, embankments, proof rolling, subgrade undercut and backfill, subgrade stabilization fabric, subbase, right-of-way ditching, right-of-way restoration, field quality control, and appurtenances.

1.02 Related Work Specified Elsewhere

A. Section 01 5713: Temporary Erosion and Sediment Control
B. Section 01 8900: Site Construction Performance Requirements
C. Section 31 1100: Clearing and Grubbing
D. Section 32 9219: Seeding

1.03 Reference Standards

A. Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

1. ASTM - ASTM International

2. AASHTO - American Association of State Highways and Transportation Officials

3. MDOT - Michigan Department of Transportation, Standard Specifications for Construction, latest edition

1.04 Allowable Tolerances

A. Finish subgrade surface shall be shaped to conform to plan grade and cross section within a tolerance of one-inch (25 mm) in ten (10) feet (3.0 m).

1.05 Submittals

A. Test Reports:

1. Testing lab shall provide ENGINEER with two (2) certified copies of the sieve analysis of the backfill material.

2. Testing of the material and the certification of the test results shall be performed by a testing laboratory approved by ENGINEER.

3. Testing lab shall provide ENGINEER with two (2) certified copies of the compaction and moisture tests of the backfill and subgrade materials.

4. Testing of the materials and the certification of the test results shall be performed by a testing laboratory approved by the ENGINEER.

B. Samples:

1. Submit sample of the proposed subgrade stabilization fabric measuring not less than 1 yd^2 (1 m^2) in area, and the manufacturer's certification that the proposed fabric meets or exceeds all requirements listed in Article 2.03 of this Section.

2. Submissions shall be made not later than 10 working days prior to any installation.

1.06 Product Delivery Storage and Handling

A. Geotextile fabric shall be furnished and stored in a wrap that will protect the geotextile from ultraviolet radiation and abrasion.

B. Geotextile shall be covered with the aggregate base as per plan within two (2) weeks of its placement.

1.07 Soil Erosion and Sedimentation Control

A. CONTRACTOR shall provide, maintain and remove such temporary and/or permanent soil erosion and sedimentation control measures as specified on the Plans or as determined by ENGINEER.

B. Measures shall prevent surface runoff from carrying excavated materials into the drain, to reduce erosion of the slopes, and to prevent silting in of drain downstream of the Work.

C. Measures should include provisions to reduce erosions by the wind of all areas stripped of vegetation, including material stockpiles.

D. Comply with requirements of Section 01 5713, Temporary Erosion and Sediment Control.

Part 2 Products

2.01 Granular Materials

A. Granular material gradation shall conform to the grading requirements for granular material Class II as specified in MDOT, Section 902.08.

2.02 Aggregate Materials

A. Aggregate materials, used for undercut backfill shall be crushed limestone, natural aggregate, blast furnace slag, or crushed concrete, meeting the requirements of 21AA, 21A or 22A as specified in MDOT Section 902.06.

B. Crushed concrete shall be free of all steel and other deleterious materials.

2.03 Subgrade Stabilization Fabric

A. Subgrade stabilization fabric shall be composed of synthetic fibers formed into a woven fabric. The fibers shall be composed of 85% propylene or ester polymers. The geotextile shall conform to the following requirements listed below:

Property	Test Procedure	Test Result
Grab Tensile	ASTM D4632	270 lbs. (min)
Elongation	ASTM D4632	15% (min)
Trapezoidal Tear	ASTM D4533	100 lbs. (min)
CBR Puncture Strength	ASTM D6241	900 lbs. (min)
Apparent Opening Size	ASTM D4751	40 – 70 U.S. Sieve
Permittivity	ASTM D4491	0.05 per sec (min)

Part 3 Execution

3.01 Removing Structures

A. Structures and sewers to be removed shall be called for on the Plans or as determined by ENGINEER. Removal or abandonment of structures shall be in accordance with Section 01 8900, Site Construction Performance Requirements.

3.02 Holes

A. Earth removed during any phase of the excavation or removal operations, resulting in a hole or void, shall be replaced by backfilling to the proposed subgrade with a suitable granular material approved by ENGINEER.

B. Material shall be compacted to 95% of its maximum unit weight.

C. Furnishing, placing and compacting of the backfill material shall be at CONTRACTOR's expense.

3.03 Salvaging and Stockpiling Topsoil

A. Topsoil, within the grading limits for cuts, and where the fill is less than five (5) feet (1.5 m) in height to the top of proposed road, shall be removed to a depth and width specified on the Plans.

B. Topsoil from peat and muck areas shall not be removed.

C. Topsoil salvaged in excess of that required by the Plans will be disposed of by the CONTRACTOR at his expense.

D. Removing and salvaging topsoil shall be in accordance with Section 31 2200, Grading.

3.04 Preparing Roadway Subgrade

A. Muck, peat and other unsuitable material within the roadway shall be removed, displaced or otherwise treated, as shown on the Plans or as directed by ENGINEER.

B. Deposits of frost heave material within lines two (2) feet (0.6 m) outside the proposed roadbed shall be removed to a depth of three (3) feet (0.9 m) below the surface of the earth grade, unless otherwise shown on the Plans or as determined by ENGINEER.

C. Ice and snow shall be removed from the surface of the ground before the embankment is placed.

D. Muck, peat, frost heave material and other unsuitable material shall be disposed of outside the highway limits or shall be spread uniformly in low places beyond the roadway limits when so approved by ENGINEER.

E. Old road surfacing or gravel, crushed stone, or other nonrigid type surfacing, occurring within the area of the roadbed and underlying proposed embankment less than 1-foot in depth, and which is not to be salvaged and incorporated in the new Work, shall be plowed or scarified full depth, spread and compacted to form a uniform foundation, before any new embankment is placed.

F. Old pavement and other rigid structures, occurring within the area of the roadbed and underlying the proposed embankment less than 1-foot in depth and which are not to be incorporated into the new Work, shall be broken up and removed.

3.05 Subgrade

A. Area to be paved shall be excavated and smoothed to the line, grade and cross section as indicated on the Plans.

B. Subgrade between the lines two (2) feet (0.6 m) on either side of the proposed edge of pavement or curb shall be compacted to 95% of the maximum unit weight for a depth of seven (7) inches (175 mm), by rolling with a roller weighing not less than ten (10) tons (9000 kg).

C. Subgrade shall be completed ahead of placing forms or paving a distance equal to the distance of one day's average paving operation. Prior to the paving operation, the subgrade shall be shaped and compacted to the Plan cross section by approved mechanical means.

3.06 Pavement Excavation

A. Pavement excavation shall consist of all Work required to construct the earth grade and its appurtenances true to the lines, grades, and cross sections called for on the Plans and in accordance with these Specifications.

B. Excavation shall consist of the following items, any of which or all of which may be included or incidental to it; removing trees, stumps, hedges, roots, culverts, sewers, miscellaneous structures, roadway excavation, removing of all asphalt or concrete pavements, curbs, curb and gutters, sidewalks, end headers, removing aggregate surfaces, salvaging and stockpiling topsoil, subgrade undercut, excavation for structures, trimming and finishing earth grade, fine grading, right-of-way ditching and restoration, and the disposal of all unsuitable material.

C. Large stones, trees, stumps, brush, shrubs, logs, matted roots, other vegetation and debris occurring between lines three (3) feet (0.9 m) outside the grading limits or as otherwise shown on the Plans shall be completely removed and properly disposed of as specified in Section 31 1100, Clearing and Grubbing.

D. Earth and other existing materials shall be excavated for the full depth and width of the cross section as shown on the Plans. Material shall be excavated sufficiently for setting of forms or slip-form equipment. Excavation shall be limited to 3,000 linear feet (900 m) of right-of-way unless additional lengths are requested in writing and approved by ENGINEER.

E. Excess excavated material shall be removed from the project by CONTRACTOR along approved routes to disposal sites approved by OWNER. Disposal of excess excavation and maintenance of the dump sites shall be considered incidental to the price paid for excavation and shall be as specified in Section 01 8900, Site Construction Performance Requirements.

3.07 Borrow Excavation

A. Materials which are secured from locations outside of the project limits for the purpose of completing embankments and other items, will be considered as borrow excavation.

B. Borrow pits and the materials to be removed therefrom shall be subject to the inspection of ENGINEER and shall be secured by CONTRACTOR, unless otherwise provided.

C. Borrow excavation will be measured by volume in cubic yards compacted in place, based on the neat lines called for on the Plans or as authorized by ENGINEER. To facilitate the accurate measurement of borrow quantities, unless otherwise specified in the Contract Documents, CONTRACTOR shall perform all the regular excavation and grading with existing materials for any designated area and ENGINEER will cross section these areas prior to CONTRACTOR furnishing and placing the required borrow material. ENGINEER will then resection the completed area and compute the volume of borrow material in its compacted-in-place state. Any borrow material placed beyond the neat lines called for on the Plans or which is not authorized by ENGINEER in writing will not be measured and computed as borrow excavations. Measurement of borrow material by truck count will not be acceptable.

D. Public and private roads used by CONTRACTOR between the source of borrow and the Project shall be maintained by ONTRACTOR, at his expense, including repairs of any damage caused by his operations. Also included is the application of a dust palliative when necessary, as determined by ENGINEER.

3.08 Embankments

A. Embankments shall be constructed with sound earth. Materials shall be deposited and compacted by either the Twelve Inch Layer Method, or the Controlled Density Method. The Controlled Density Method will be required unless the twelve inch layer method or some other method is specifically called for on the Plans.

B. Topsoil shall be stripped from the entire fill area. Depth of the topsoil to be removed shall be as shown on the Plans or as determined by ENGINEER. After the topsoil is removed, the entire area upon which the embankment is to be constructed shall be compacted to not less than 90% of the maximum unit weight, to a depth of nine (9) inches (225 mm).

C. Where stones are prevalent, the material shall be carefully placed so that all large stones will be well distributed and the crevices completely filled with smaller stones, earth, sand or gravel so as to form a solid embankment. Rock or fragmental material of such size as would prohibit it from being placed in layers of the specified depth shall not be placed in the embankment. In no case shall stones over three (3) inches (75 mm) in diameter be placed within 12 inches (300 mm) of the surface of the earth grade within the areas between lines two (2) feet (0.6 m) outside of the edges of proposed roadbed.

D. Frozen material shall not be placed in the embankment nor shall embankment be placed upon frozen material.

E. Construction requirements for the two (2) methods of placing and compacting embankments are as follows:

1. Twelve-Inch Layer Method:

a. Material shall be deposited and spread in layers not more than 12 inches (300 mm) in depth, loose measure, parallel to the finished grade and extending to the full width of the embankment. Material shall be deposited by operating the conveying equipment over the layer being placed, insofar as feasible.

b. Each layer shall be compacted to not less than 95% of the maximum unit weight as determined at the existing moisture content. Operation of compacting shall be continued until each layer is compacted to the required density for its full width.

2. Controlled Density Method:

a. Material for the embankment shall be deposited and spread in layers not more than nine (9) inches (225 mm) in depth, loose measure, and extending to the full width of the embankment, except that granular material may be spread and compacted in layers not more than 15 inches (375 mm) in thickness if the specified density is obtained.

b. Material for embankments of five (5) feet (1.5 m) or less and the bottom four (4) feet (1.2 m) of embankments of more than four (4) feet (1.2 m) above the surface of the ground upon which the embankment is to be constructed shall have not more than the optimum moisture content at the time of compaction.

c. Material for that part of the embankment more than five (5) feet (1.5 m) above the surface of the ground upon which the embankment is to be constructed shall have a moisture content of not greater than three (3) percent above optimum at the time of compaction, except that the moisture content of the top three feet (0.9 m) of the embankment shall not exceed optimum. If granular material is used to construct the embankment, it shall be at a moisture content below saturation.

F. If the material contains an excess of moisture, it shall be dried to the required moisture content before being compacted.

G. Each layer of material containing the required amount of moisture shall be compacted to not less than 95% of its maximum unit weight, unless otherwise specified, before the succeeding layer is started.

H. When the original ground upon which the embankment is being placed, or any section of compacted embankment, or the soil in cut sections becomes rutted or distorted by CONTRACTOR's equipment, the method of operation shall be changed to eliminate this condition. CONTRACTOR shall reshape and recompact any areas so rutted or distorted at his own expense. This shall be done before any succeeding layers are placed.

3.09 Rough Grading

A. CONTRACTOR shall rough grade as close as possible to finished subgrade leaving a minimum to be removed in fine grading.

B. Excavated material removed during grading and stored along the line of Work between curb and sidewalk on improved lawns shall not be left longer than 48 hours. Lawns or otherwise improved areas shall be left in a neat and clean state within the specified 48 hours.

C. During the excavation operation, including the placing of the subbase, the Work area shall be kept free of water. A dewatering system shall be provided and maintained by CONTRACTOR at his expense. The dewatering system shall remain in operation until the paving is completed.

3.10 Proof Rolling

A. After removal of topsoil or other overburden and after construction of embankments, proof roll the existing subgrade with six passes of a minimum 15 ton pneumatic-tired roller. Operate the roller in a systematic manner to assure the number of passes over all areas, and at speeds between 2.5 and 3.5 miles per hour. When proof rolling under structures, one-half of the passes made with the roller shall be in a direction perpendicular to the other passes.

B. Proof rolling shall be done in the presence of ENGINEER. Rutting or pumping shall indicate unsatisfactory material and that material shall be undercut as determined by ENGINEER, and replaced with the appropriate fill material.

C. Perform proof rolling only when weather conditions permit. Do not proof roll wet or saturated subgrades. Materials degraded by proof rolling a wet or saturated subgrade shall be replaced by CONTRACTOR as determined by ENGINEER at no cost to OWNER. Notify ENGINEER 3 days prior to proof rolling.

3.11 Subgrade Undercut Excavation

A. Unsuitable subgrade excavation shall be the operation of:

1. removing unsuitable soils as determined by ENGINEER, below the level of the ground after topsoil has been stripped in fill areas where the embankment is to be five (5) feet (1.5 m) or less in height to plan grade, or

2. the removal of unsuitable soils below the subgrade elevation, as determined by ENGINEER in cut areas after the subgrade has been established.

B. In fill areas, after topsoil has been stripped in accordance with Article 3.03 of this Section, ENGINEER will inspect the embankment area to certify the adequacy of the native soils and to determine the extent of any additional excavation of unsuitable soils prior to placing the first lift of the embankment.

C. In cut areas after the subgrade elevation has been established by the mass grading operation, ENGINEER will inspect the subgrade to determine the extent of any additional excavation of unsuitable soils.

D. The areas excavated of unsuitable material, unless otherwise specified in the Contract Documents, shall be backfilled with nonfrost heaving material similar to the adjacent soil. However, in areas as determined by ENGINEER where free water due to seepage is present, the excavation shall be backfilled with Granular Material, Class II, and drainage shall be provided. Backfill shall be compacted to not less than 95% of the maximum unit weight, unless otherwise specified.

3.12 Subgrade Stabilization Fabric

A. Place Subgrade Stabilization Fabric on prepared subgrade or subbase in the manner and at the location as called for on the plans. Fabric shall be laid smooth and free of tension stress, wrinkles or creases.

B. Fabric strips shall be placed to provide a minimum overlap of 24 inches (600 mm) for each joint.

C. Fabric shall be placed so that the upper strip will overlap the next lower strip.

D. Should the geotextile be damaged during construction, the torn or punctured section shall be repaired by placing a piece of fabric that is sufficiently large to cover the damaged area plus two feet (0.6 m) to adjacent undamaged geotextile in all directions.

3.13 Trimming and Finishing Earth Grade

A. After the earth grade has been constructed to the required grade, all stones and rocks more than 3 inches (75 mm) in diameter, appearing on the surface of the subgrade shall be removed.

B. Earth grade and the subgrade shall be trimmed to the grade called for on the Plans. Subgrade, where a subbase or base course is required, shall be trimmed to the established grade within ± 0.1 foot (30 mm). Where a subbase or base course is not required, the subgrade shall be trimmed to the established grade within ± 3/4 inch (20 mm).

C. Earth grade outside the subgrade shall be trimmed, all irregularities made smooth and the entire site or roadway completed to the required lines, grades, and cross sections. Backslopes and fill slopes shall be finished as either Class A or Class B slopes. Class A slopes shall be required unless otherwise specified in the Contract Documents.

1. Class A Slopes:

   a. Class A slopes shall be finished to the average slopes shown on the Plans with no variations at any point more than 0.1 foot (30 mm) above or below the established grade measured at right angles to the slopes.

2. Class B Slopes:

   a. Class B backslopes shall be finished to the average slopes shown on the Plans with no variations at any point more than 0.5 foot (150 mm) above or below the established grade measured at right angles to the slope. The degree of finish of the slopes shall be that obtainable from machine operations. The smoothness of surface finish ordinarily associated with template or string line and hand operations will not be required, but abrupt variations will not be permitted. Debris except sod, leaf mold and rotted forest litter shall be removed and loose clods of earth extending beyond the 0.5 foot (150 mm) tolerance shall be broken or removed.

   b. Class B fill slopes shall be finished to within 0.2 foot (60 mm) of the established grade and cross section from the outside shoulder line for a distance of three (3) linear feet (0.9 m) down the slope. The remainder of the completed fill slope shall conform to the requirements for Class B backslopes.

   c. Where waste earth or other surplus material is deposited on fill slopes, the slopes may be flattened or otherwise altered as directed by ENGINEER, to produce a uniform cross section which blends with the topography and presents a pleasing appearance.

D. Where trees or other restrictions do not interfere, the tops of backslopes, bottoms of fill slopes and all other angles in the lines of the cross section shall be rounded to form vertical curves as shown on the Plans or as determined by ENGINEER. Transitions in length of vertical curves shall be gradual and shall present a uniform and attractive appearance. When ditches are constructed in peat, vertical curves may be omitted.

3.14 Subbase

A. Granular material for subbase shall be evenly spread and compacted as specified in MDOT Section 301.

B. Thickness of each layer placed shall be determined by the required density obtained but shall not exceed 15 inches (375 mm) in depth, loose measure.

C. Subbase shall be constructed to the alignment, grade and cross section shown on the Plans. Should the subgrade at any time prior to or during the placing of the subbase become soft or unstable so that rutting occurs in the subgrade, or if the subgrade material is forced up into the subbase material, the operation shall immediately cease and the mixed material shall be removed and disposed of. Subgrade shall be corrected and new subbase material placed and compacted. This Work shall be considered incidental to the construction of the Project.

3.15 Scarify, Re-Grade and Compact Existing Subgrade

A. Existing subgrade (base) shall be scarified to a depth of 9-inches to the limits as shown on the plans. Subgrade shall then be re-shaped to the cross section as shown on the plans and compacted. Subgrade shall then be compacted to 95% of the maximum unit weight by rolling with a roller weighing not less than ten (10) tons (9000 kg).

3.16 Roadway Ditching

A. Ditching shall be constructed at the locations called for on the Plans or as determined by ENGINEER. Ditch may be shaped by "Machine Grading" or another method approved by ENGINEER to achieve the cross section, line and grade shown on the Plans.

B. Excess material from the ditch construction shall be disposed of by CONTRACTOR at his expense.

C. Ditch section shall be graded to receive either topsoil and seed or topsoil and sod. Topsoil, seed, sod, fertilizer and mulch shall conform to the requirements specified on the Plans and in Section 32 9219, Seeding or Section 32 9223, Sodding.

D. CONTRACTOR, at his expense, shall furnish, place and compact any additional material needed to construct the ditch at the location and cross sections called for on the Plans.

3.17 Right-of-Way Restoration

A. Right-of-way shall be restored in accordance with the type and location specified on the Plans. Right-of-way may be shaped by "Machine Grading" or another method approved by ENGINEER to achieve the cross section, line and grade shown on the Plans.

B. Excess material from the right-of-way restoration operation shall be disposed of by the CONTRACTOR at his expense, as specified in Section 01 8900, Site Construction Performance Requirements.

C. Right-of-way shall be graded to receive either topsoil and seed or topsoil and sod. Topsoil, seed, sod, fertilizer and mulch shall conform to the requirements specified on the Plans and in Section 32 9219, Seeding or Section 32 9223, Sodding.

D. CONTRACTOR, at his expense, shall furnish, place, and compact any additional fill, meeting the approval of ENGINEER, needed to construct the right-of-way to the cross sections called for on the Plans.

3.18 Maintenance Aggregate

A. CONTRACTOR shall furnish and install 21A, 21AA or 22A maintenance aggregate to maintain pedestrian and traffic access. Aggregate shall be placed and compacted to maintain access in areas as determined by ENGINEER. Maintenance aggregate will be incidental to the Project unless otherwise specified in the Contract Documents.

3.19 Testing

A. During the course of the Work, ENGINEER may require testing for compaction, sieve analysis and moisture content of the backfill and subgrade materials.

B. Taking of samples and the testing required shall be performed by a testing laboratory suitable to OWNER and approved by ENGINEER. Cost for testing and sampling shall be at the expense of OWNER.

C. ENGINEER shall determine the location and number of samples to be made. The testing laboratory shall furnish the ENGINEER with two (2) certified copies of the results of all tests.

D. Testing procedures shall conform to current MDOT Standards for Construction.

E. Maximum unit weight when used as a measure of compaction or density of soils shall be understood to mean the maximum unit weight per cubic foot (or cubic meter) as determined by ASTM D1557, Method D, modified to include all the material passing the 1-inch (25 mm) sieve.

3.20 Defective Work

A. Any portion of the backfill, subbase or subgrade which is deficient in the specified density shall be corrected by methods meeting the approval of ENGINEER.

B. Extra testing or sampling required by ENGINEER, because of deficiencies, shall be at CONTRACTOR's expense.

End of Section

Section 31 2333
Trenching and Backfilling

Part 1 General

1.01 Scope of Work

A. This Section includes open trench construction for utility installation, complete with trenching, sheeting, bracing, bedding, bedding materials, backfilling, backfill materials, and compaction.

1.02 Related Work Specified Elsewhere

A. Section 01 5713: Temporary Erosion and Sediment Control
B. Section 01 8900: Site Construction Performance Requirements
C. Section 31 1100: Clearing and Grubbing
D. Section 31 2200: Grading
E. Section 33 1100: Water Utility Distribution Piping

1.03 Reference Standards

A. Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

1. ASTM - ASTM International

2. AASHTO - American Association of State Highways and Transportation Officials

3. MDOT - Michigan Department of Transportation, Standard Specifications for Construction, latest edition

1.04 Test Reports

A. Testing laboratory shall provide ENGINEER with two (2) certified copies of the test results of the compaction of the backfill.

B. Testing for compaction and the certification of the test results shall be performed by a testing laboratory approved by ENGINEER.

1.05 Mix Design

A. Submit mix designs for any concrete or flowable fill mixtures to be used on the Project. Include certified test results for seven day and 28 day strengths, together with any technical information for admixtures.

1.06 Soil Erosion and Sedimentation Control

A. CONTRACTOR, at his expense, shall provide, maintain and remove such temporary and/or permanent soil erosion and sedimentation control measures as specified on the Plans or as determined by ENGINEER.

B. Measures shall prevent surface runoff from carrying excavated materials into the drain, to reduce erosion of the slopes, and to prevent silting in of drain downstream of the Work.

C. Measures should include provisions to reduce erosions by the wind of all areas stripped of vegetation, including material stockpiles.

D. Comply with requirements of Section 01 5713, Temporary Erosion and Sediment Control.

Part 2 Products

2.01 Class II Granular Materials

A. Class II granular material gradation shall conform to the grading requirements for granular material Class II, as specified in MDOT, Section 902 except as follows. Class II granular material shall be natural bank run sand with a maximum size of 1½-inches (38 mm).

2.02 Crushed Stone Bedding

A. Crushed, angular, natural stone material, meeting the requirements of MDOT 21AA. Crushed concrete and slag are not allowed.

2.03 Concrete

A. Concrete shall conform to MDOT, Section 701, use grade S3; 3,000 psi (21 MPa) strength; Type I-A cement; 5.5 sacks cement per cubic yard (307 kg/m^3); 6A coarse aggregate; 2NS fine aggregate; 6.5% ± 1.5% air content; 3-inch (75 mm) maximum slump; no admixtures without ENGINEER's review.

Part 3 Execution

3.01 Trench Excavation

A. Open cut trench excavation shall include the site clearing and grubbing, the excavating of all materials encountered, the supporting and protecting of all structures and/or utilities encountered above and below the ground surface, and the removal of water from the construction site.

B. Trenching operation shall commence at the downstream or outlet end of the new Work and proceed upstream, unless otherwise specified on the Plans or directed by ENGINEER.

C. Trench shall be excavated in reasonably close conformity with the lines and grades specified on the Plans or as established by ENGINEER.

D. Excavated materials shall be temporarily stored along the trench in a manner that will not cause damage to trees, shrubs, fences, improvements, utilities, private property, public property or traffic. The excavated materials shall not be placed at such locations that will endanger the trench banks by imposing loads thereon.

E. Trench shall be of sufficient width to provide adequate working space to permit the installation of the pipe and the compaction of the bedding material under and around the pipe. However, for rigid pipe, the width of the trench from below the pipe bedding to 12 inches (300 mm) above the top of the pipe shall not exceed the following dimensions:

Diameter of Pipe	Width of Trench
6-inch thru 12-inch pipe (150 thru 300 mm)	30 inches wide (750 mm)
15-inch thru 36-inch pipe (375 thru 900 mm)	outside diameter plus 16 inches (400 mm)
42-inch thru 60-inch pipe (1050 thru 1500mm)	outside diameter plus 20 inches (500mm)
over 60-inch pipe (1500mm)	outside diameter plus 24 inches (600 mm)

F. Support the additional load of the backfill when the maximum trench width as specified for rigid pipe is exceeded, CONTRACTOR shall install, at his expense, concrete encasement which shall completely surround the pipe and shall have a minimum thickness at any point of 1/4 of the outside diameter of the pipe or four (4) inches (100mm), whichever is greater, or at his expense, install another type bedding, approved by ENGINEER. Concrete encasement shall consist of 3,000 psi (21 MPa) strength concrete.

G. For flexible pipe, the minimum width shall be not less than the greater of either the pipe outside diameter plus 16 in. (400 mm) or the pipe outside diameter times 1.25, plus 12 in. (300 mm). Maximum trench width for flexible pipe shall not exceed the minimum width by more than 6-inches.

H. To support the additional load of the backfill when the maximum trench width as specified for flexible or semi-rigid pipe is exceeded, CONTRACTOR shall install, at his expense, crushed stone pipe bedding to the full width between undisturbed trench walls or at least 2.5 pipe diameters on each side of the pipe.

I. When through, CONTRACTOR's construction procedure or because of unsuitable existing ground conditions, it becomes impossible to maintain alignment and grade properly, CONTRACTOR, at his expense, shall excavate below the normal trench bottom grade and shall fill the void with a large size aggregate or 3,000 psi (21 MPa) concrete as approved by ENGINEER to ensure that the pipe when laid in the proper bedding will maintain correct alignment and proper grade.

J. Trench excavations, including those for shafts and structures, shall be adequately braced and/or sheeted where necessary to prevent caving or squeezing of the soil.

3.02 Sheeting, Shoring, and Bracing

A. CONTRACTOR shall furnish, place and maintain at all times such sheeting, shoring, and bracing of the trench and/or shaft as may be required for safety of the workmen and for protection of the new Work or adjacent structures, including pavement, curbs, sidewalks, pipe lines, conduits next to or crossing the trench, and the protection and safety of pedestrian and vehicular traffic.

B. CONTRACTOR shall be responsible for the complete design of all sheeting, shoring and bracing Work. The design shall be appropriate for the soil conditions, shall be of such strength, quality, dimension and spacing as to prevent caving or loss of ground or squeezing within the neat lines of the excavation, and shall effectively restrain movement of the adjacent soil. Prior to installing the sheeting, shoring or bracing, CONTRACTOR shall submit Plans for this Work to ENGINEER for informational purposes only.

C. Sheeting, shoring, bracing, and excavation shall conform to the current federal or state regulations for safety.

D. Where indicated on the Plans and where necessary in the Work, install and leave sheeting, shoring, and bracing in place. No extra compensation shall be paid to CONTRACTOR for sheeting, shoring or bracing left in place.

E. Supports for pipes, conduits, etc., crossing the trench shall conform to the requirements of the owners of such facilities, and if necessary, shall be left in place.

F. The furnishing, placing, bracing, maintaining, and removing of sheeting, shoring, and trenching materials shall be at CONTRACTOR's expense. CONTRACTOR shall not remove the trench sheeting, shoring and bracing unless the pipe has been properly bedded, and the trench backfilled to sufficiently support the external loads. Also the sheeting, shoring, and bracing material shall not come in contact with the pipe, but shall be installed so that no concentrated loads or horizontal thrusts are transmitted to the pipe.

3.03 Pipe Bedding

A. Install and compact in six inch layers. Particular care shall be taken to assure filling and tamping all spaces under, around, and above the top of the pipe. Work in and around pipe by hand to provide uniform support.

B. Rigid Pipe Bedding:

1. Rigid pipe bedding shall conform to ASTM C12, except as noted.

a. Class R-A:

(1) Pipe shall be bedded in crushed stone bedding material placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four (4) inches (100 mm) or 1/4 of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe to the horizontal centerline. The top half of the pipe shall be covered with a monolithic plain concrete arch having a thickness of at least four (4) inches (100 mm) or 1/4 of the inside diameter of the pipe, whichever is greater, at the pipe crown and a minimum width equal to the outside diameter of the pipe plus eight (8) inches (200 mm) or 1-1/4 of the diameter of the pipe, whichever is greater.

b. Class R-B:

(1) Pipe shall be bedded in crushed stone bedding material placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four inches (100 mm) or 1/8 of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe to the horizontal centerline. Backfill from pipe horizontal centerline to a level not less than 12 inches (300 mm) above the top of the pipe shall be Class II granular material. This material shall be placed in 6-inch (150 mm) layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches (300 mm) above the top of pipe.

c. Class R-C:

(1) Pipe shall be bedded in Class II granular material, placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four (4) inches (100 mm) or 1/8 of the outside diameter of the pipe, whichever is greater, and the bedding shall

extend to a level not less than 12 inches (300 mm) above the top of the pipe. This material shall be placed in 6-inch (150 mm) layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches (300 mm) above the top of pipe.

C. Flexible Pipe Bedding:

1. Flexible pipe bedding shall conform to ASTM D2321, except as noted. Continuous and uniform bedding shall be provided in the trench for all buried pipe.

a. Class F-I:

(1) Pipe shall be bedded in crushed stone bedding material placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four (4) inches (100 mm), and shall extend up the sides of the pipe until the top of pipe is covered by a minimum thickness of 12 inches (300 mm).

(2) Where allowable trench widths are exceeded, Class F-I bedding shall be used to the full width between undisturbed trench walls. Concrete cradle bedding shall not be used.

b. Class F-II:

(1) Pipe shall be bedded in crushed stone bedding material placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four (4) inches (100 mm), or 1/8 of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe to the horizontal centerline. Backfill from pipe horizontal centerline to a level not less than 12 inches (300 mm) above the top of the pipe shall be Class II granular material. This material shall be placed in 6-inch (150 mm) layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches (300 mm) above the top of pipe.

(2) Where allowable trench widths are exceeded, Class F-I bedding shall be used to the full width between undisturbed trench walls. Concrete cradle bedding shall not be used.

c. Class F-III:

(1) Pipe shall be bedded in Class II granular material, placed on the trench bottom. Bedding shall have a minimum thickness beneath the pipe of four (4) inches (100 mm) or 1/8 of the outside diameter of the pipe, whichever is greater, and the bedding shall extend to a level not less than 12 inches (300 mm) above the top of the pipe. This material shall be placed in 6-inch (150 mm) layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches (300 mm) above the top of the pipe.

(2) Where allowable trench widths are exceeded, Class F-I bedding shall be used to the full width between undisturbed trench walls. Concrete cradle bedding shall not be used.

3.04 Backfilling Trenches

A. Backfill material shall be placed on sections of bedded pipes only after such pipe bedding and backfill materials have been approved by ENGINEER.

B. Trench backfilling shall follow the pipe laying as closely as possible. However, at no time shall the pipe laying in any trench precede backfilling of that trench by more than 100 feet (30 m), unless otherwise directed by ENGINEER.

C. Backfilling shall not be done in freezing weather except by permission of ENGINEER. Frozen materials shall not be used in trench backfilling.

D. Following trench backfill specifications are for use in that portion of the trench beyond the scope of the pipe bedding requirements which normally stops at a point 12 inches (300 mm) above the top of pipe.

1. Backfill material to be placed above pipe bedding shall be free of cinders, ashes, refuse, boulders, roots, stumps, trees, timbers, brush, debris, or other extraneous materials which in the opinion of ENGINEER, are unsuitable.

2. Rocks or stones having a dimension larger than six (6) inches (150 mm) shall not be placed within three (3) feet (1 m) of the top of the pipe .

3. Large stones may be placed in the remainder of the trench backfill only if well separated and arranged so that no interference with backfill settlement will result.

E. The type and method of backfilling is dependent on its location and function and shall conform to the following requirements:

1. Trench "A":

a. All other trenches shall be backfilled with suitable excavated material placed in uniform layers that can be adequately compacted and tested from the surface of that layer. Each layer shall be thoroughly compacted by approved mechanical methods to a density equivalent to the undisturbed adjacent soil or 90% of its maximum unit weight which ever is less.

2. Trench "B":

a. Trenches under road surfaces, pavement, curb, driveway, sidewalk and where the trench edge is within three (3) feet (1m) of the pavement and as noted on the plans shall be backfilled with natural bank run sand meeting the requirements of Class II granular material, unless otherwise indicated on the Plans. The material shall be placed in uniform layers that can be adequately compacted and tested from the surface of that layer and shall be compacted to 95% of the materials maximum unit weight. Trenches under pavement to be constructed in the near future, as noted or shown on the Plans, shall be backfilled with natural bank run sand, meeting the requirements of Class II granular material, unless otherwise indicated on the Plans, as herein provided.

b. Where a pipe is installed under an existing or proposed utility, the backfill between the two shall be natural bank run sand meeting the requirements of Class II granular material, unless otherwise indicated on the Plans, constructed as herein specified.

F. Unless otherwise specified on the Plans or as directed by ENGINEER, the trench backfill shall be carried to the adjacent existing ground.

G. Where any backfill or bedding as shown on the plans or specified is to be flowable fill, care shall be used to avoid displacing any pipes or structures due to fluid pressure. Pipes in backfill areas may need to be secured to avoid the bouyancy effect.

3.05 Compacting Trench "B" Backfill

A. Trench "B" backfill shall be compacted to 95% of the maximum unit weight, unless otherwise specified on the Plans or authorized by ENGINEER.

B. Compaction of the backfill will not be paid for separately, but shall be considered incidental to the Work of backfilling and shall include all the Work of manipulating the soil, to obtain the specified densities. No additional compensation will be allowed for any delay required to obtain the specified moisture content or the specified density.

3.06 Cleanup

A. Immediately following the placing and compacting of the backfill, the excess material shall be removed and disposed of by CONTRACTOR, at his expense, as specified in Section 01 8900, Site Construction Performance Requirements. The construction area shall be leveled and left in a neat workmanlike condition.

B. At a seasonally correct time, approved by ENGINEER, the disturbed area shall be raked, having topsoil placed thereon, fertilized and seeded per the requirements of Section 32 9219, Seeding, or sodded in accordance with Section 32 9223, Sodding.

3.07 Field Testing

A. During the course of the Work, ENGINEER may require testing for compaction or density of the backfill. Taking of samples and the testing required shall be performed by a testing laboratory suitable to OWNER and approved by ENGINEER. The cost for testing and sampling shall be at the expense of OWNER.

B. Maximum unit weight, when used as a measure of compaction or density of soils, shall be understood to mean the maximum unit weight per cubic foot or per cubic meter as determined by ASTM D1557, Method D.

3.08 Defective Work

A. Any portion of the trench backfill which is deficient in the specified density shall be corrected by methods meeting the approval of ENGINEER.

B. Any extra testing or sampling required because of deficiencies shall be at CONTRACTOR's expense.

End of Section

Division 32
Exterior Improvements

Section 32 9219
Seeding

Part 1 General

1.01 Scope of Work

A. This Section includes seeding complete with earth bed preparation, providing and placing topsoil, preparation and fertilizing topsoil, sowing of seed for lawns and other ground cover, protection of seeded areas, watering of seeded areas, mowing of seeded areas, protection and cleanup.

1.02 Related Work Specified Elsewhere

A. Section 01 8900: Site Construction Preparation Requirements
B. Section 31 2200: Grading

1.03 Requirements of Regulatory Agencies

A. Comply with the applicable requirements of the Michigan Department of Agriculture, Pesticide and Plant Pest Management Division, Michigan Seed Law, Act 329, PA of 1965, as amended.

B. Comply with the applicable requirements of the Proceedings of the Association of Official Seed Analysts, Rules for Testing Seeds.

C. Chemical fertilizer shall be supplied in suitable bags with the net weight of the contents and guaranteed analysis shown on the container. Bulk shipments shall be accompanied by an analysis and net weight certification of the shipment. Custom mixed fertilizers shall be accompanied by a certification of the weight of each commercial fertilizer used in the mixture and a guaranteed analysis of each shipment expressed in percentages of total Nitrogen (N), total available Phosphoric Acid (P_2O_5) and total available Potash (K_2O) included.

1.04 Source Quality Control

A. A seed mixture proposed for use in the Work shall have been tested for purity and germination by the Seed Producer within nine (9) months of sowing.

1.05 Reference Standards

A. ASTM - American Society for Testing and Materials

B. MDOT - Michigan Department of Transportation, Standard Specifications for Construction, latest edition

1.06 Submittals

A. Submit Seed Producers Certification that seed meets the requirements of these Specifications and conform to the State of Michigan Seed Act referenced above under Article 1.03 of this Section.

B. Where required, submit test reports for all seed proposed for use in the Work to ENGINEER, showing results of purity and germination tests, compliance with regulatory agencies, dates and location of tests.

1.07 Product Delivery, Storage, and Handling

A. Material shall be delivered to the Project site in their original, unopened containers. Containers shall be clearly marked showing, name of manufacturer, brand name, trade name or generic name of material, warranty of analysis, net weight of contents and date of packaging, where applicable.

B. Seed shall be delivered to the site in durable bags, tagged or labeled to show date of tests, warranty of purity and germination analysis, name, lot number and net weight of contents.

C. Commercial fertilizers shall be delivered to the site of the Work in the original unopened bags. Bags shall not exceed 100 pounds (45 kg) net weight each and shall be clearly marked with guaranteed analysis in a conspicuous location on each bag.

D. Material shall be stored at the Project site, under shelter, off the ground and shall be protected from damage by moisture, temperature, exposure to elements, vandalism or other action which might otherwise impair their use.

E. Materials proposed for use in the Work shall be handled in a manner that will protect the material and the personnel involved in the Work. Handle seed in a manner which will protect the mixture from contamination or deterioration.

1.08 Environmental Requirements

A. Seeding is limited to the periods between April 20 and June 1, August 10 to October 1 and after November 20 for as long as weather permits preparation of the seed bed without irrigation and/or mulch. With the use of irrigation and/or mulch, seeding can be done from April 20 thru October 1 inclusively.

B. Comply with the limitations placed on the use of certain soil protection materials because of prevailing temperatures as described in this Section.

C. Comply with the limitation placed on seeding applications because of wind velocity as described-in this Section.

1.09 Protection

A. Provide suitably approved warning signs and barricades for protection of seeded areas from pedestrian or vehicular traffic. Protect all newly seeded areas during the progress of the Work and until completion of the turf establishment period.

B. Protect all adjacent construction from topsoil spills and perform such cleanup of affected surfaces before it becomes compacted by traffic.

1.10 Final Acceptance

A. CONTRACTOR shall establish a dense cover of seeded grass on disturbed areas.

B. These areas shall be maintained until final acceptance of the Work by ENGINEER.

C. ENGINEER will inspect the turf to insure that the grass seed is well established, weed free, in a growing and vigorous condition.

D. Areas that do not meet the approval of ENGINEER shall be re-seeded at CONTRACTOR's expense.

Part 2 Products

2.01 Seed

A. Seed and seeding mixtures shall be certified, mature, clean, dry, new crop seed products suitable for the specified applications and having the percentages of purity, germination and proportions, by weight, indicated in Table 1.

Table 1 - Seeding Mixtures

	Seeds		Mixture Proportions (%)			
Kind	Purity	Germination	TDS	TUF	TGM	THM
Kentucky Blue Grass	98%	80%	5	10	10	30
Perennial Rye Grass	96%	85%	25	20	20	20
Hard Fescue	97%	85%	25	20	30	
Creeping Red Fescue	97%	85%	45	40	40	50
Fults Salt Grass	98%	85%*		10		

Table 2 – Soil Types and Location of Seeding

Symbol for Turf Seed Mixture	Soil Type	General Location	Rate of Seeding lbs/ac (kg/ha)
TDS	Dry Sandy to Sand Loam	Rural or Urban	250 (280)
TUF	All Types	Freeway, Blvds, Streets	250 (280)
TGM	Medium to Heavy	All	250 (280)
THM	Loamy to Heavy	Home and Business Turf	250 (280)

B. The specific mixture to be used shall be for the type of soil on the Project and the location of the seeding unless otherwise indicated on the Plans or as designated by ENGINEER.

C. Hydroseeding shall consist of a blend of seed, fertilizer and hydromulch.

2.02 Mulching Material

A. Straw:

1. Small grain straw or grass or marsh hay acceptable to ENGINEER.

B. Wood Excelsior:

1. Green wood fibers, baled or blanket of type and manufacture acceptable to ENGINEER.

2. Wood excelsior shall be made of green timber fiber baled so that the bales weigh 80 to 90 pounds at the time of manufacture.

3. Wood excelsior blankets shall be made of a uniform web of interlocking fibers with a backing of fabric netting on one (1) side only. The fabric net shall have a mesh size not exceeding 1-1/2" x 3" (40 mm x 75 mm) and shall be a woven of either cotton cord, twisted paper cord or a synthetic, biodegradable fiber. Blankets shall be produced in the form of a tightly compressed roll 36 inches ± 1-inch (900m m ± 25 mm) wide and approximately 120 feet (36 m) long. Blanket shall have a fiber net on the outside of the fiber mat. Blanket roll weight, when manufactured, shall average 85 pounds (38 kg) ± 10%. Each roll shall have separator sheets of 40 pound Kraft paper placed at the beginning and at the end of each roll to facilitate unrolling and handling at the job site. The Kraft paper sheet at the end of each roll shall also form a wrapper for the roll.

C. Netting:

1. Twisted Kraft paper or synthetic fiber, biodegradable woven mesh net material suitable for the application and acceptable to ENGINEER.

2. The net shall consist of a biodegradable mesh with openings not to exceed 1-1/2" x 3" (40 x 75 mm)

3. The net shall be furnished in widths of not less than 35 inches (900 mm).

D. Proprietary Mulch Material:

1. Biodegradable natural and/or synthetic materials suitably fabricated and acceptable to ENGINEER.

2.03 Mulch Anchoring Material

A. Emulsified Asphalt:

1. ASTM D977, Rapid Setting (R.S. 1 or 2), Medium Setting (M.S. 2 or 2h) or Slow Setting (S.S. 1).

B. Mulch Anchoring Tool:

1. Suitable unit having a series of flat, notched discs for punching and anchoring mulch in soil, or a regular farm disc weighted and set nearly straight as a substitute.

C. Latex Base Adhesive:

1. Latex base adhesive mixed with water at a ratio of 25 gallon of water to 1 gallon adhesive with 25 pounds of recycled newsprint as a tracer (14 L of adhesive with 0.35 kL of water with 28 kg of newsprint).

D. Recycled Newsprint:

1. Mix 7 pounds of newsprint with 7 gallons of water (60 kg of newsprint with 1000 L of water).

E. Guar Gum:

1. Mix 1 pound of dry adhesive with 26.5 gallons of water with 5 pounds of recycled newsprint as a tracer (55 kg adhesive / 12 200 L water / 280 kg newsprint).

2.04 Fertilizer

A. Fertilizer shall be a standard commercial grade fertilizer, conforming to state regulations, of the type recommended for grasses. The fertilizer shall contain slow release nitrogen amounting to 75% of the nitrogen available. Fertilizer shall be uniform in composition, free flowing and suitable for application with method selected. Fertilizer for hydraulic seeding shall be soluble or ground to a fineness that will permit complete suspension of all insoluble particles in the slurry.

2.05 Agricultural Liming Materials

A. Burnt lime (quick lime), hydrated lime, limestone (calcite and dolomite), marble shells and by-products shall conform to the requirements of ASTM C602.

2.06 Water

A. Free of matter harmful to plant growth.

2.07 Staples

A. Wire staples for holding mulching materials in place shall be not less than six (6) inches (150 mm) long No. 11 (U.S. Steel Gage) steel wire or longer.

2.08 Topsoil

A. Topsoil shall be fertile, friable, sandy clay loam without admixture of subsoil. Topsoil is to be free of glass, stones greater than one (1) inch (25 mm) in any dimension, weeds, undesirable grasses and other extraneous materials. Topsoil shall have the following range of values:

1.	Soil pH	5.0 to 7.5
2.	Soluble Salts	500 ppm max
3.	Organic Content	5 to 30 %
4.	Silt Content	35% to 50%
5.	Clay Content	5% to 10%
6.	Deleterious Material*	5% max

*rock, gravel, stone, sticks, roots, sod, etc.

B. Compost may be mixed with topsoil to obtain the desired content. Topsoil is to be final screened thru a 5/8-inch (15 mm) maximum mesh screen prior to delivery to the Project site. ENGINEER shall review source and final screen results prior to release of topsoil. CONTRACTOR shall submit a certified analysis of the topsoil from each source to ENGINEER. Topsoil shall be placed in 3-inch (75 mm) minimum thickness throughout, or as specified in the plans or Specifications.

C. CONTRACTOR shall obtain his own topsoil borrow pit source and shall obtain all necessary permits and agreements for the use of such borrow pits at his own expense.

2.09 Improved Topsoil

A. Improved topsoil shall consist of a mixture of 2/3 topsoil and 1/3 compost. Compost shall be mature/stabilized, humus-like material derived from the aerobic decomposition of yard waste (i.e., grass clippings and leaves) or other materials as designated compostable as defined in P.A. 641 as amended and shall be in compliance with all federal and state law.

B. The improved topsoil mixture shall have a dark brown or black color, be capable of supporting plant growth without ongoing addition of fertilizers or other soil amendments and shall not have objectionable odor. The mixture shall be free of glass, plastic, metal, and other contaminants, as well as viable weed seeds and other plant parts capable of reproducing. The mixture shall be such that no visible water or dust is produced when handling it.

C. The manufacturer of the compost shall maintain annually on file with the Michigan Department of Agriculture, Pesticide and Plant Pest Management Division, test data and a statement to show that the following criteria are being met by the compost provided for the project.

D. The composition of the compost shall be within the following range of values:

	Quality Parameter	Range of Value
1.	Soil pH	6 to 7.5
2.	Soluble Salts	2 to 5 mmho/cm
3.	Carbon/Nitrogen Ratio	13 to 20 parts C to 1 part N
4.	Inerts	< 1%
5.	Organic Matter	35 to 55 %
6.	Nitrogen	1 to 2 %
7.	Phosphorus	0.2 to 0.8 %
8.	Potassium	0.5 to 1.5 %
9.	Unit Weight	535 to 775 Kg/m3
10.	Moisture Content	40 to 50 %
11.	Particle Size	< 20 mm maximum
12.	Water Holding Capacity	> 100%
13.	Heavy Metals	None

E. Maturity/Stabilization: An acceptable test that can demonstrate Maturity/Stability.

F. Temperature: The compost material must have undergone the procedure to significantly reduce the pathogen level as referenced in EPA 40 CFR, Part 257 Regulations, Federal Register Vol. 58, No. 32, dated 2/19/93; Rules and Regulations. The temperature must be maintained at 40° C for 5 days with a temperature exceeding 55° C for at least 4 hours.

G. Pathogens and Trace Elements: Shall meet the requirements of EPA 40 CFR; Part 503 Regulations, Federal Register Vol. 58, No. 32, dated 2/19/93; Rules and Regulations.

H. To comply with the annual filing requirements with the Michigan Department of Agriculture, Pesticide and Plant Management Division, the supplier of the compost shall certify that the compost meets Michigan P.A. 641 as amended and EPA 40 CFR, Part 257 and 503 Regulations, Federal Register Vol. 58, No. 32; dated 2/19/93; Rules and Regulations.

I. A data sheet shall accompany the certification.

J. The data sheet shall show the following:

1. Standard compost total nutrient test results, including N, P, K, Ca, Mg, Mn, Cu, Fe total carbon, pH, as provided by an acceptable testing laboratory
2. Organic content
3. Inert contamination
4. Soluble salts

5. Carbon/Nitrogen ratio

6. Proof of maturity/stability acceptable to the Michigan Department of Agriculture

K. The certification and data sheets shall be mailed annually to the Michigan Department of Agriculture, Agriculture Environment Coordinator. The date shall be included on which the compost test results were mailed to the Michigan Department of Agriculture.

Part 3 Execution

3.01 Preparation of Subgrade

A. Complete all fine grading within the areas to be covered with topsoil necessary to bring the surface of the proposed subgrade to the elevations indicated on the Plans and parallel to the proposed finished grade. The surface of the subgrade immediately prior to being covered with topsoil shall be raked or otherwise loosened to a minimum depth of two (2) inches (50 mm) to facilitate making a bond between the subsoil and the topsoil.

3.02 Preparation of Soil

A. After the areas to be seeded have been brought to the required grade and properly trimmed and cleaned up, the existing soil shall be brought to a friable condition by harrowing or otherwise loosening and mixing to a depth of at least four (4) inches (100 mm). Lumps and clods shall be thoroughly broken. When the area to be seeded has been prepared and covered with a layer of topsoil as specified under Article 3.01 of this section, this operation will not be required.

3.03 Preparation of Mulch Material

A. When seed is to be sown through mulch which has been in place for a period of more than two (2) weeks or which is being held in place by a surface-applied coating of asphalt emulsion or other adhesive, the mulched area shall be prepared for seeding by discing, a spike-toothed harrow, or by other means acceptable to ENGINEER.

3.04 Placing and Spreading Topsoil

A. Topsoil shall be placed and spread over the area designated on the Plans, or as determined by ENGINEER, to a depth of four (4) inches, ± 1-inch (100 mm ± 25 mm) or to such depth as specified on the plans.

B. In all cases, topsoil shall be placed to a depth sufficiently greater than that shown on the Plans or specified so that, after natural settlement or rolling, the completed Work will conform to the lines, grades and elevations shown on the Plans.

C. Spreading of topsoil shall be completed in such a manner that seeding as specified can proceed without additional moving of topsoil. Topsoil furnished and placed shall be considered incidental to seeding unless otherwise specified in the Proposal.

D. After topsoil is spread, all large earth lumps, rocks, roots, debris, or other foreign matter shall be raked and removed from the topsoiled area and legally disposed of by CONTRACTOR.

3.05 Fertilizing

A. Chemical fertilizer shall be applied on the prepared soil surfaces at a minimum rate of 1/3 ton per acre (666 lbs/ac.) (750 kg/ha) of 12-12-12 fertilizer, or such other rate of another fertilizer mixture that yield 240 lbs/acre (270 kg/ha) of nutrient. Dry fertilizers shall be thoroughly disced, harrowed or raked into the soil to a minimum depth of not less than 1-inch (25 mm). Where hydraulic seeders are used for sowing seed, one half the recommended rate of fertilizer may be spread in combination with such sowing with the balance incorporated into the soil prior to seeding. In all other cases, fertilizer shall be incorporated into the soil before any seeding is started.

3.06 Seeding

A. Seed of the kind required shall be sown at the rate as specified in Table 2. Seed shall be sown in the presence of an inspector by mechanical spreader, hydraulic seeder or broadcasting. The broadcasting method shall be used for sowing seed only in areas inaccessible to mechanical spreading equipment. Seeding during winds above 15 miles per hour (25 km/hr) shall not be permitted.

B. Prior to placing seed materials, water topsoil to a depth of four (4) inches (100 mm) at least 48 hours prior to seeding operations to obtain a loose friable seed bed. Time and depth of watering operations shall be varied at the direction of ENGINEER for varying conditions at the site of the Work.

C. Broadcasting methods for sowing seed materials shall be accomplished by spreading one-half of the specified amount of seed in one direction and then broadcasting the remaining one-half of the seed at right angles to the first seeding pattern using the same broadcast method. Rate of broadcast shall be as specified herein or per the written recommendations of the Producer of the seed material used. Roll seeded area with roller weighing a maximum of 150 pounds/foot (225 kg/m) of width.

D. Hydroseeding shall be performed using suitably acceptable hydraulic seeding equipment and a homogeneous slurry solution of water, seed, fertilizer and suitable mulch material as approved by ENGINEER. Seed slurry mixture shall be distributed uniformly at a rate approved by ENGINEER for the seed materials, fertilizer and/or mulch materials used to suit the seed application rate. Seed application rate shall be 300 lbs/acre (340 kg/ha).

3.07 Mulching

A. Mulching shall consist of placing a mulch material on areas that have been or are to be seeded. Mulch shall be placed in a loose enough condition so as to allow penetration of sunlight and circulation of air, but thick enough to shade the ground, reduce rate of water evaporation and prevent or reduce erosion by wind or water. Mulch shall be secured with suitably acceptable anchoring material.

B. For surfaces and slopes on which power equipment can be operated, satisfactory mulching materials include the following:

C. Small grain wheat straw or grass hay applied at 1-1/2 to two (2) tons per acre (3.5 to 4.5 metric ton/ha) with disc packer, asphalt or netting tie-down.

D. Wood chips applied at six (6) to nine (9) tons per acre (13.5 to 20.0 metric tons/ha).

E. Asphalt emulsion alone at 600 to 1,200 gallons per acre (5.5 to 11. kl/ha). (This application is suitable for limited periods of time and where trampling by either people or animals will not occur.)

F. For surfaces and slopes where power equipment cannot be operated, satisfactory mulching materials include the following:

G. Straw or grass hay applied at 1-1/2 to two (2) tons per acre (3.5 to 4.5 metric tons/ha), anchored with asphalt or netting tie-down.

H. Asphalt emulsion alone at 600 to 1,200 gallons per acre (5.5 to 11.0 kl/ha). (Limited to areas where tracking is not a problem.)

I. Commercially available erosion control netting of jute, paper or biodegradable synthetics.

J. Continuous filament fiberglass at 1,000 pounds per acre (1100 kg/ha) anchored with 150 gallons (1400 l/ha) of asphalt emulsion.

K. Anchor straw or hay mulch by the methods as specified herein.

L. Wood chips will not need anchoring when used on workable slopes.

M. Commercially manufactured netting and/or fiberglass materials shall be anchored in accordance with the manufacturer's printed instructions for the material used.

N. Punch and anchor mulch material into soil using mulch anchoring tool. Soil must be moist, free of stones and loose enough to permit disc penetration to a depth of three (3) inches (75 mm).

O. Blow on liquid or emulsified asphalt materials with the straw or hay mulch or spray or sprinkle asphalt tie-down materials immediately after mulch is spread.

P. Apply emulsified asphalt at 0.04 gallons per square yard 0.2 l/m^2). Do not apply emulsified asphalt during freezing weather since it contains approximately 50% water. Apply liquid (cut back) asphalt at approximately 0.10 gallons per square yard (0.45 l/m^2). Liquid asphalt may be applied during freezing weather since it is cut back with kerosene.

3.08 Conversion from Soil Protection to Permanent Vegetation

A. Following straw or hay mulching, grass seeding can be made in early spring by broadcasting seed directly into the mulch. Fertilizer or lime, where needed, should be incorporated into the soil before mulching.

B. Asphalt emulsion alone can be readily incorporated into the soil by ordinary tillage before seeding.

C. Wood chip mulch may be removed before seeding or incorporated deeply into the soil. If wood chips are incorporated into the soil, the addition of extra nitrogen fertilizer to the soil will be required to provide nitrogen in the new seeding.

D. Fiberglass mulch shall be removed before seeding because of its permanence. Care shall be taken to prevent fiberglass filaments left in place from becoming entwined or wound around shafts of power mowers or other power equipment.

E. Acceptable proprietary netting and erosion control materials shall be disposed of in accordance with the manufacturer's printed instructions for the material used prior to any seeding operations.

3.09 Turf Establishment

A. Seeded areas shall be watered whenever excessive drying is evident during the period set for establishment. Watering shall be done in a manner that will prevent erosion due to the application of excessive quantities and the watering equipment shall be of a type that will prevent damage to the cultivated surfaces. CONTRACTOR shall be responsible for the proper care of the seeded areas until final acceptance of the entire Work covered by the Contract.

B. The seeded areas shall be mowed with mowing equipment acceptable to ENGINEER to a height of two (2) inches (50 mm) whenever the average height of grass establishment reaches four (4) inches (100 mm). When the amount of cut grass is heavy, cut grass shall be removed to prevent destruction of the underlying grass. If weeds or other undesirable vegetation threaten to smother the planted species, such vegetation shall be mowed, or in the case of rank growths, shall be uprooted, raked and legally disposed of from the area.

C. Reseed and mulch areas larger than four (4) square inches (25 cm^2) not having a dense, uniform, vigorous stand of grass acceptable to ENGINEER.

D. The establishment period shall extend for a period from the time of seeding until the seeded area has a uniform stand of grass acceptable to ENGINEER. The minimum period shall be 30 days.

E. If after 60 days from the initial seeding a dense, uniform, vigorous stand of grass has not been established by CONTRACTOR, OWNER may reseed the defective areas and all costs will be deducted from CONTRACTOR’s payments.

End of Section

Division 33
Utilities

Section 33 1100
Water Utility Distribution Piping

Part 1 General

1.01 Scope of Work

A. This Section includes water main Work complete with water main piping, valves, hydrants, thrust blocks, valve wells, structures, fittings, joints, joint materials, nuts, bolts, glands, gaskets, plugs and accessories as shown and required. This Section also includes bedding and laying of water main piping, hydrostatic testing of new water main piping systems, and flushing and chlorination of water main piping systems.

1.02 Related Work Specified Elsewhere

A. Section 31 2333: Trenching and Backfilling

1.03 Requirements of Regulatory Agencies

A. Conform to the applicable requirements of State and local health authorities having jurisdiction for disinfection and testing of water mains.

1.04 Reference Standards

A. Unless otherwise specified, the Work of this Section shall conform to the applicable portions of the following Standard Specifications:

1. ANSI - American National Standards Institute

2. ASTM - ASTM International

3. AWWA - American Water Works Association

4. MDOT - Michigan Department of Transportation, Standard Specifications for Construction, latest edition

5. NSF - National Sanitation Foundation

1.05 Submittals

A. Tabulated Laying Schedule:

1. Tabulated Laying Schedule, showing stationing, deflection, elevation, slope and description of pieces (i.e., pipe size and material; fitting type, size and material; valve type and size, etc.) shall be submitted to ENGINEER. Pipe manufacture shall not be started until the laying schedule has been reviewed by ENGINEER.

B. Product Data:

1. Submit catalog data showing pipe sizes, and manufacturing standards, as well as design calculations for internal pressure, vacuum and external load conditions, for both non-restrained and restrained joints.

C. Schedule of Corporation Stops (Tapping Outlets):

1. A complete schedule of tapping outlets installed in water main piping shall be kept by CONTRACTOR and submitted to ENGINEER at the end of each water main piping section of the Project or on the last day of each week, whichever occurs first.

D. Quality Assurance Materials:

1. Quality assurance test procedures, test reports for pipes, specials and fittings shall be submitted to ENGINEER.

E. Affidavits:

1. Affidavits of compliance with the Contract Documents shall be submitted to ENGINEER and shall include the following, where applicable:

a. Pipes, specials and fittings (AWWA C200).

b. Cement-mortar protective lining (AWWA C205 and AWWA C602).

c. Tape coating for the exterior (AWWA C214 and AWWA C209).

d. Shrink wrap for exterior (AWWA C216).

e. Paint system for the exterior (AWWA C210, C218 or C222).

f. Manufacturer's standard repair procedures.

g. Manufacturer's written quality control procedures.

h. Manufacturer's Installation Instructions: Indicate special installation requirements.

i. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

2. Affidavits for items a through e shall be signed by an authorized professional.

1.06 Closeout Submittals

A. The following shall be submitted in accordance with Section 01 7700, Closeout Procedures:

1. Manufacturer's field reports.

2. Project record documents:

a. Accurately record actual locations of piping mains, valves, connections, and invert elevations.

b. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

3. Provide a final record laying schedule.

4. Submit certified copies of hydrostatic test results of completed force main sections as specified in Article 3.15.

1.07 Storage of Materials

A. Pipe shall be stored in a manner to minimize infiltration of dirt, debris and other extraneous materials.

B. Piping materials shall not be stacked higher than four (4) feet (1.2 m). Suitable racks, chairs and other supports shall be provided to protect preformed pipe mating surfaces from damage. Store bottom tiers off the ground, alternate tiers and chock tier ends.

C. Store hydrants, valves, wells and prefabricated structures off the ground, drained and kept free of water to protect against damage from freezing. Hydrants, valves, wells, their accessories and appurtenances shall be kept in their original containers until ready for installation.

D. Gaskets, glands, joint and sealing materials subject to ultra-violet or ozone attack shall be protected from the sunlight, atmosphere and weather; and stored in suitable enclosures until ready for installation.

1.08 Handling of Materials

A. Load and unload piping using suitably approved hoists and skidding. Piping shall not be dropped, bumped or allowed to impact against itself. Damaged piping shall be rejected by CONTRACTOR.

B. Lifting devices shall be suited to the Work and shall protect surfaces from damage.

Part 2 Products

2.01 Scope

A. It is the intent of the Articles in Part 2 of this specification section is to specify in detail the various types of pipe, joints, and fittings which have been indicated throughout the Plans and Specifications.

B. These Articles shall not be construed as allowing any alternate type of material to that which is indicated on the Plans or elsewhere in the Specifications.

2.02 Polyvinyl Chloride (PVC) Piping Systems

A. Rigid polyvinyl chloride bell and spigot type pressure pipe and couplings, size four (4) inches (100 mm) and larger, shall conform to AWWA C900, pressure class 235, DR 18 unless otherwise indicated in the Contract Documents. Rigid polyvinyl chloride bell and spigot type pressure pipe and couplings, smaller than four (4) inches shall be ASTM D2241, SDR 21, pressure class 200.

B. Molecularly oriented polyvinyl chloride (PVCO) pipe sizes 4-iches through 24-inches shall be AWWA C909, pressure class 200 unless otherwise indicated in the Contract Documents. PVCO pipe will only be allowed when specifically called for in the Contract Documents.

C. Compounds used for production of PVC pipe and components shall be suitable for potable water products as required in NSF 14 and ANSI/NSF 61. Spigot end of pipe shall be marked to visually determine when the spigot is fully seated in the bell of the adjoining pipe.

D. Joints for PVC pipe shall be push-on or mechanical elastomeric gasket type, conforming to ASTM D3139.

E. PVC fittings shall only be allowed when called for on the Plans. When allowed, 4-inch and larger PVC fittings and plugs shall be 200 pound (1380 kPa) Pressure Class conforming to AWWA C900 of types and sizes indicated on the Plans. PVC fittings smaller than 4-inches, when allowed, shall be ASTM D2241.

F. Fittings and plugs for PVC pipe, unless specified otherwise, shall be ductile iron and as specified in Article 2.02.

G. Gaskets for PVC pipe shall be elastomeric seal type conforming to ASTM F477.

H. Pipe joint lubricants shall be manufacturers standard nontoxic conforming to AWWA C900.

2.03 Restrained Joints

A. Where the Plans or Specifications call for restrained joints they shall be per the following.

1. Restrained joints for ductile iron pipe and fittings shall be designed for a working pressure of 350 psi (2.4 MPa). Joints shall be capable of being deflected after assembly. Restraints shall be by one of the following methods:

   a. A positive axial lock between the bell interior surface and a retainer welded on the spigot end of the pipe.

   b. A thrust restraint wedge which embeds in the pipe with twist off nuts to control wedge setting.

2. Restrained joints for PVC water main pipe shall be designed for a working pressure of 200 psi (1.4 MPa). Where the restrained portion of the pipe is connected to fittings, restraint shall be provided across the joint by a clamping ring and anchored to the fitting with T-head bolts or stainless steel rods.

3. Restraining devices for PVC water main pipe shall incorporate clamping rings with serrations on the inside surface to provide positive restraint on the outside surface of the pipe and shall provide full support around the circumference of the pipe to maintain roundness.

2.04 Valves

A. General:

1. Valves, operation, accessories, and specific notes are specified on the drawings. Valve materials and workmanship shall conform to applicable ANSI, ASTM, and AWWA standards. Valve bodies shall have an arrow to indicate direction of turning to open.

B. Gate Valves:

1. Gate valves 2 inches in diameter or larger shall be iron-body, bronze mounted, inside-screw, hand-operated resilient seat, and shall be equipped with rubber O-Ring Seals at the top of the stems unless otherwise shown on the plans. Valves shall conform to the requirements of AWWA Specification C500, except as such specifications are herein modified. Gate valves shall be designed for minimum working pressure of 200 psi.

2. Valves smaller than 3 inches in diameter shall have threaded connections, unless shown otherwise on the plans. Valves three inches (3") in size and larger, shall have mechanical joints for use underground and shall have flanged joints if they are to be installed in structures. Flanges for pressure ratings shall be faced and drilled to comply with ANSI Specifications A21.15.

3. Wedge shall be of cast iron completely encapsulated with rubber. The sealing rubber shall be permanently bonded to the cast iron wedge to meet ASTM tests for rubber metal bond ASTM D-249.

4. Valves shall be supplied with O-Ring Seals at all pressure retaining joints. No flat gaskets allowed.

5. Gate valves shall be hand operated and designed to turn left or counter-clockwise to open with 2" square operating nut or handwheel with the word "Open" and an arrow cast in the metal to indicate direction of opening.

6. Suitable extension stems or operating keys shall be furnished to properly operate all valves installed with valve boxes, and all necessary guides and supports for valve stems shall be furnished and installed where required.

7. Gate valves installed underground shall be equipped with standard cast iron valve boxes unless otherwise shown on the plans. Where valves are shown to be of smaller diameter than the connecting piping the two reducers required shall be included as fittings.

8. CONTRACTOR shall submit to ENGINEER complete catalog information showing principal dimensions, weights, and specifications and operating data for all valves he proposes to finish.

9. Body and bonnet shall be coated with fusion bonded epoxy both interior and exterior, complying with AWWA C-550 and be NSF 14 and NSF 61 approved.

10. Each valve shall have maker's name, pressure rating, and year in which manufactured cast on the body. Prior to shipment from factory, each valve shall be tested by hydrostatic pressure equal to requirement for both AWWA requirements. Bolting shall either be regular plated or stainless steel type 304/316, as required.

11. Valves shall be as manufactured by Mueller Company, Clow Valve Company, or ENGINEER-approved equal. Valves shall be backed by manufacturer's five-year limited warranty.

2.05 Tapping Sleeves

A. Tapping Sleeves shall be cast iron or ductile iron, pressure rating of 250 psi (1.7 MPa), mechanical joint sleeves conforming to AWWA C153, furnished complete with valve, stops, caps, plugs and joint accessories as indicated on the Plan. The sleeve shall be of a 2-section type.

2.06 Valve Boxes

A. Valve boxes shall be 3-piece, 5-1/4 inch (135 mm) diameter, screw type, gray iron castings consisting of base section, bottom section, and top section with lid, conforming to ASTM A48, Class 20. Overall length shall be adjustable to meet grade.

2.07 Corporation Stops

A. Corporation stops, couplings and plugs shall be water service bronze of type and size detailed on the Plans.

2.08 Service Saddles

A. Water service saddles shall be compatible with the main and service lead, with straps of a ductile material to avoid crushing the main out-of-round. A molded gasket of rubber or neoprene shall completely encircle the tapped opening to insure a watertight connection. The use of lead gaskets is not allowed. Water service saddles shall be bronze with AWWA tapped threads.

B. Service saddles used with PVC water main shall be double strap, full circular and provide uniform bearing around the circumference. U-bolt type straps are not allowed.

2.09 Curb Stops

A. Water service bronze of types and sizes detailed on the Plans. Curb stops shall include an extension type, 3-piece curb box with extension type base, foot piece, one piece lid and a 3-foot stationary rod, unless otherwise specified.

2.10 Threaded Fittings

A. Where indicated on the Plans, threads for water main service fittings shall conform to the requirements of AWWA C800 and AWWA C800 "Appendix for Materials."

2.11 Water Service Pipe

A. Soft Copper shall be Type "K" conforming to ASTM B-88, with flared fittings.

B. Polyvinyl Chloride shall conform to ASTM D2241 or D1785 Schedule 40.

2.12 Restraints, Clamps, Rods, and Ties

A. High strength low alloy steel or stainless steel conforming to ANSI/AWWA C111/A21.11. Balls and fittings shall be bronze alloy or corrosion protected steel.

2.13 Structures

A. Material for water main structures shall conform to the details on the plans and the requirements listed below:

1. Concrete brick shall be ASTM C55, Grade S-II, solid units of nominal 3-inch (75 mm) thickness.

2. Concrete block shall be ASTM C139 shape and scored as detailed and as approved.

3. Precast concrete structures shall conform to ASTM C478, circular with circular reinforcement as detailed. Provide lifting holes in precast units where indicated.

2.14 Covers and Frames

A. Structure frame and covers shall be of the types and sizes as detailed on the Plans. Covers shall be Class 30, ASTM A48 gray iron castings. Castings shall be neatly made and free from cracks, cold sheets, holes and other defects. Surfaces of castings shall be ground to assure proper fit and to prevent rocking. Units shall be frost proof and shall be provided with tapping screws and anchors where indicated on the Plans.

2.15 Bolts, Studs, and Nuts

A. Bolts, studs, and nuts shall be as specified on the Plans and shall conform to the requirements of ANSI/AWWA C111/A21.11 and the ASTM standards listed below:

1. Bronze: ASTM B98
2. Steel: ASTM A307, Grade B
3. Cadmium Plating: ASTM B766, Grade NS
4. Zinc Coating: ASTM A153 or B633, Type GS

B. Tee head bolts and nuts shall be high strength, low alloy steel conforming to ANSI/AWWA C111/A 21.11.

1. Cement: 100 lbs/cyd (60 kg/m^3)(minimum)

2. Water: Sufficient water to produce the desired flowability (approximately 700 lbs/cyd)(415 kg/m^3)

C. Temperature of the flowable fill mixture as manufactured and delivered shall be at least 50°Fahrenheit (10° Celsius).

D. Flowable fill can be mixed by pugmill, central concrete mixer, ready mix truck, turbine mixer, or other acceptable equipment or method for filling abandoned Water Mains.

E. CONTRACTOR shall submit a history of the mix design for 7 day and 28 day strengths, together with any other technical information. The design mix shall also be included as part of CONTRACTOR's submittals for project.

2.16 Tracer Wire

A. Copper clad steel wire with 30 mil High Density Polyethylene insulation. Concentric copper cladding metallurgically bonded to a steel core through a continuous solid cladding process.

B. Copper cladding to measure 3% minimum of the overall wire diameter. Wire to be 12 AWG, 0.0808 inches in diameter, 0.00242-inch nominal copper thickness, 9.5270 ohms nominal resistance per 1,000 feet, 675 pounds breaking strength. Wire to be Copperweld ® or equal.

2.17 Acceptable Manufacturers

A. Flexible Joint Pipe: Acceptable manufacturers include "F141," Clow, "Usiflex," U.S. Pipe, or equal.

B. Restrained Joints: Acceptable manufacturers for restrained joints for ductile iron pipe include Griffin Pipe Products Company, “Snap-Lok” or “Bolt-Lok”; American Cast Iron Pipe Company, “Lok-Ring” or “Lok-Fast”; United States Pipe and Foundry Company, “TR Flex”; EBBA Iron “Megalug” or ENGINEER-approved equal.

1. Manufactured in accordance with ANSI/AWWA C111.

2. A tightly adherent, corrosion resistant coating shall be used on all exposed metal components of the restrained joint system.

a. Wedges, actuating hardware or other exposed threaded components shall be coated with a minimum of two (2) coats of fluoropolymer epoxy coating that has been heat cured.

b. Primary restraint castings shall be coated with a polyester coating, electrostatically applied and fusion bonded.

c. Bolts, nuts, and washers shall be manufactured of low-allow steel conforming with the material characteristics listed in ANSI/AWWA C11 and shall have a minimum of two (2) coats of fluoropolymer epoxy coating that has been heat cured.

C. Valve Boxes: Acceptable manufacturers include: "A-295 Three Piece Screw Type," Traverse City Iron Works; "F2450," Clow, "Series 6860, Tyler," or equal.

D. Corporation Stops: Acceptable manufacturers include: Hays; Crane; Mueller; Ford; or equal.

E. Service Saddles: Acceptable manufacturers include: "Twin Seal," Clow, "Hays Seal," Hays, "Service Saddles," Mueller, or equal.

F. Curb Stops: Acceptable manufacturers include: Hays, Ford, Mueller, or equal.

Part 3 Execution

3.01 CONTRACTOR's Verification

A. Prior to the installation of any water main piping or materials, examine all trenches and other excavations for the proper grades, lines, levels and clearances required to receive the new Work.

B. Ascertain that all excavation bottoms, compacted subgrades and pipe bedding are adequate to receive water main materials to be installed. Correct defects and deficiencies before proceeding with the work.

C. Expose the existing water main piping and structures to which the new Work is to be connected and notify ENGINEER of the same. ENGINEER will verify the vertical and horizontal locations of the existing system and shall inform CONTRACTOR as to the necessary adjustments required to align the new water main work with the existing system.

3.02 Preparation

A. Remove lumps, blisters and excess coatings from the socket and plain ends of pipe. Wire brush and wipe clean the outside surfaces of plain ends and the inside surfaces of socket ends before installation. Any pipe or fitting which has acquired a coating of mud or other foreign material shall be scrubbed clean with heavily chlorinated water.

B. Pipe fittings, valves, hydrants, accessories and appurtenances shall be examined carefully for damage and other defects immediately before installation. Defective or damaged materials shall be rejected and removed from the Project by CONTRACTOR.

3.03 Installation - General

A. Foreign matter shall be prevented from entering the pipe while it is being placed in the trench. During and after laying operations, no debris, clothing or other materials shall be placed in the pipe.

B. During the progress of water main Work, watertight plugs shall be carried along and inserted in the end of each pipe as it is laid to prevent foreign matter or rodents from entering the pipe. This watertight plug shall be fastened in the end of the water main in such a manner as to prevent it from floating or being otherwise displaced whenever construction operations are temporarily halted, such as at noon or at the end of the day's Work.

C. Each section of pipe, when placed to grade and line, shall have firm bearing on the trench bedding throughout its length between bell holes.

D. Cutting of pipe shall be done with approved tools and by approved methods suitable for the pipe material. Pipe cutting methods that produce a smooth, square-cut end without damage to the pipe and that minimize airborne particles, shall be employed. Pipe cutting shall be performed using the recommendations of the manufacturer for the type of pipe materials being cut and according to the best trade practices.

E. When cutting pipe or fittings, care shall be taken to prevent damage to linings and coatings. Damage to linings shall be cause for rejection of the complete Section. Damage to exterior coatings shall be corrected to original Specifications.

F. Where pipe using a resilient gasket to affect the seal is cut, the cut pipe end shall be tapered at a 30-degree angle with the centerline of the pipe, and ground smooth, on the outside end to remove any sharp edges or burrs which might damage the gasket.

G. Unless otherwise specified, pipe shall be laid with bell ends facing in the direction of laying. After a length of pipe is placed in the trench, the spigot shall be centered in the bell end of the adjacent pipe section, the pipe shoved into position and brought to true alignment and secured with sand tamped under and on both sides of the pipe except at bell holes. Adequate support shall be provided for all water main pipe.

H. After the bottom of trench has been excavated the pipe bedding material will be installed in accordance with Section 31 2333, Trenching and Backfilling. The pipe shall then be installed strictly in accordance with the manufacturer's recommendations. After the pipe is laid, the bedding shall be continued above the pipe as specified in Section 31 2333, Trenching and Backfilling. Particular care shall be taken to assure filling and tamping all spaces under, around and above the top of the pipe.

I. A continuous and uniform bedding as specified in Section 31 2333, Trenching and Backfilling, shall be provided in the trench for all buried pipe.

J. Backfill shall be as indicated on the Plans and as specified in Section 31 2333, Trenching and Backfilling.

K. Install bolts, studs, and nuts of the type specified per the manufacturer's installation and torquing requirements. All steel bolts, studs, and nuts shall be painted with bituminous paint after installation.

3.04 Installation of Polyvinyl Chloride Pipe

A. Polyvinyl chloride pipe shall be laid with gasketed joints in complete accordance with AWWA C605 and the pipe manufacturers published instructions. Joints shall be sufficiently lubricated using the pipe manufacturers recommended lubricant.

B. Gaskets for pipe joints shall be inserted with the painted edge facing the end of the bell. Each length of pipe shall be pushed home individually. Pipe shall be positioned so that the reference mark on the spigot end is in line with the bell end.

C. Tracer wire is to be installed along with PVC water mains. Tracer wire is to be continuous from end to end and terminate at each structure in such a way and with a sufficient length of wire to allow for easy connection to utility tracing equipment. Wire shall be continuity tested after installation. Any wire which fails the continuity test shall be replaced.

3.05 Installation of Restrained Joints

A. Restrained joints shall be provided where indicated on the plans. Joints shall be assembled in strict accordance with manufacturer’s directions. Joints shall be fully extended after assembly.

3.06 Fittings, Strapping, and Lugged Pipe

A. Install all fittings to the lines, levels and locations indicated on the Plans. Fittings shall be provided with restraints as specified herein, as indicated on the Plans, or as required for a functional installation.

B. Where indicated on the Plans or as determined by ENGINEER, bends in water main piping and piping runs subject to impact reaction shall be secured by means of metal strapping. Install all necessary bands, tie rods, nuts, and washers required. No metal strapping shall be used in direct contact with polyvinyl chloride pipe.

C. Where lugged pipe and special fittings are indicated on the Plans, furnish and install all necessary tie rods, nuts, and washers.

3.07 Valves

A. Valves shall be installed to the grade, lines, levels and locations indicated on the Plans.

B. Valve connections shall be as specified for the piping materials used. Valves shall be set with the stem plumb on permanent, firm foundations as indicated on the Plans.

C. Where required, valves shall be supported with special supports as indicated on the Plans and as approved by ENGINEER. Valves shall be installed so as not to receive support from the connecting pipe. In no case shall valve installation be used to bring misaligned pipe into alignment.

3.08 Line Tapping

A. Traditional line tapping methods shall be used for the installation of all insertion valves to allow removal of a single coupon for system evaluation. Reaming the pipe, complete removal of a section of pipe (top and bottom) or milling a slot in the pipe shall be prohibited.

B. Insertion valves must be installed by companies trained and authorized by the approved valve manufacturer. This will ensure high quality installation and guarantee the warranty of the product.

C. Tapping shall be accomplished without interruption of service.

3.09 Water Main Structures

A. Construct water main valve wells and structures to the grades, lines and levels indicated on the Plans and as specified. Structures shall be complete with concrete bases, reinforcing, frames, covers, adjustment rings, etc. as shown and as required for a complete installation. Construction of water main structures shall conform to the type of construction and dimensions indicated on the Plans and as described below.

B. Block Structures:

1. Construct concrete block structures in the locations and according to the details on the Plans. The first course of concrete blocks shall be placed on the prepared base or footings in a full bed of mortar.

2. Mortar joints shall be full and close in courses. Courses shall be level throughout. Stagger joints in adjoining courses by one-half the length of the block as nearly as practicable.

C. Joints shall be uniform in thickness throughout the structures. Strike joints and properly point to provide true, smooth surfaces.

D. Precast Concrete Structures:

1. Construct precast concrete structures as detailed on the Plans. Provide mortar joints struck smooth. Provide 2 to 4 courses of 8-inch (200 mm) brick at top of structure for future adjustment.

E. Cement mortar plaster coat shall be applied to the exterior surfaces of all brick or block gate wells and other water main structures indicated on the Plans. Plaster coat shall be 1/2 inch (10 mm) thick and shall be applied to the outer surfaces of the structures.

F. Provide and install to the elevations shown cast iron covers, frames, adjusting rings, anchors, etc., indicated on the Plans and as required. Castings shall be set in a full bed of cement mortar 1/2 inch (10 mm) thick minimum. Mortar joints shall be struck smooth.

G. Install steps for structures of types and in locations indicated on the Plans. Steps shall be installed on 16-inch (400 mm) centers minimum, unless shown otherwise on the plans.

H. Pipe placed in structures for inlet or outlet connections shall extend through the walls and beyond the outside wall surfaces a sufficient distance to allow for complete connections. Openings between pipes and walls shall be sealed with a full bed of cement mortar. Pipe shall be supported by concrete supports.

3.10 Valve Boxes

A. Install valve boxes to the grade, lines, levels and locations indicated on the Plans. Valve boxes shall not transmit shock or stress to the valve and shall be set plumb with covers centered over operating nuts and flush with the indicated surface elevations. Valve boxes that shift or fill during backfilling shall be uncovered and reset.

3.11 Blow-off Assembly

A. Provide materials and construct blow-off assemblies where indicated on the Plans.

B. Blow-off assemblies and pipe shall be installed to the lines, levels and elevations shown. Install valves, fittings, reducers, piping, plugs, joints, etc., as detailed.

C. Blow-off assemblies shall be installed on stable, undisturbed earth materials with changes in directions and returns provided with bedding and restraints as indicated on the Plans, as specified herein and as required for a complete installation.

D. Blow-off assemblies shall include valve boxes as detailed.

3.12 Anchors, Encasements, and Restraints

A. Plugs, tees, sleeves, bends, caps, straps and lug piping shall be provided with suitable anchors, encasements and restraints as indicated on the Plans. Anchoring, encasement and restraint methods shall be as detailed. Bearings shall be as shown.

B. Anchors, encasements and restraints shall rest on firm, stable, compacted subgrade and shall be provided for all standard and special fittings.

3.13 Water Service Lines

A. When so indicated in the Proposal, or on the Plans, CONTRACTOR shall provide water service lines in accordance with this Section. Otherwise, water service lines are not required.

B. Water service lines shall be installed after the water main has been successfully tested and put into service, including the installation of fire hydrants.

C. Service lines shall be of the type indicated on the Plans, and shall be 3/4 inch (20mm) diameter unless otherwise indicated on the Plans or Proposal.

D. Water service lines shall be provided for all lots or parcels at the locations indicated on the Plans, within these Contract Documents or as designated by ENGINEER. Service lines shall extend from the water main to within 1-foot (300 mm) of the limits of a right-of-way or easement at a minimum 5-foot (1.5 m) depth terminating with a curb stop and curb box as specified herein.

E. Water service lines under concrete or asphalt pavements shall be installed by boring or tunneling, unless otherwise indicated on the Plans or approved by ENGINEER.

F. Backfilling of open cut construction for water services shall be in accordance with Section 31 2333, Trenching and Backfilling, after the service line, including curb stop, has been laid and approved by ENGINEER. Prior to backfilling the service line CONTRACTOR shall request an inspection by ENGINEER and obtain approval of the service line.

G. Alternative methods such as hydraulic jacking; air jetting; piston mole; etc, may be used to install water service lines if approved by ENGINEER.

1. Proposed method must be approved by the governmental agency having jurisdiction over the work area and CONTRACTOR must demonstrate that, in the opinion of ENGINEER, the method is suitable for local soil and ground conditions.

2. To be found suitable for local conditions, the method must be demonstrated to perform within acceptable horizontal and vertical accuracy limits, must not compress soil beyond acceptable limits, and must not leave voids in the soil. Water jetting shall not be permitted.

3. Final installation of the service pipe must be in accordance with manufacturer's recommendations and no joints or fittings shall be allowed under roadway surfaces.

H. Existing water mains shall be kept in service until all water services have been connected to the new mains. CONTRACTOR shall repair all water services damaged during the installation of the new water mains. Only after the new mains have been accepted and put into service, will service connections be made to the new mains.

I. Reconnection of Water Services:

1. Connection of existing service lines to the new mains shall be made within the street rights-of-way or within the easements, utilizing the existing curb stops.

2. Existing lead water service lines shall be abandoned and new water service lines installed from the new water main to the existing curb stops.

J. Backfill, method of construction under pavements, and new water service lines shall be as specified in this Section.

3.14 Corporation Stops

A. Corporation stops shall be located on water main piping where indicated on the Plans, or as determined by ENGINEER.

B. Corporation stops on PVC water mains shall be made with service saddles.

C. Install a minimum of two (2) corporation stops in each valve well.

D. One-inch (25 mm) tapping outlets shall be installed at approximately 20-foot (6 m) intervals along the entire length of the concrete water main. Tapping outlets shall be constructed as detailed on the plans and shall be positioned 45 degrees off vertical. Location of the tapping outlets shall be marked by means of No. 4 (No. 13M) reinforcing rod. The rod shall be placed in a vertical position immediately adjacent to, but not touching, the water main and the top, 6 inches (150 mm) below finished grade.

3.15 Service Saddles

A. Where service saddles are to be installed, the entire circumference of the main shall be free of loose material. Installation of the saddle and tapping of the main shall be in accordance with manufacturer's recommendations.

3.16 Curb Stops

A. Install curb stops of the types and sizes indicated on the Plans. Curb stops shall include furnishing and installing a curb box.

3.17 Hydrostatic Testing

A. General:

1. After the pipe has been laid and backfilled, the pipe shall be hydrostatically tested for leakage. CONTRACTOR shall furnish the pump, pipe connection, hydrants, valves and any other necessary apparatus including gages and meters and all personnel necessary for conducting the test. Before applying the test pressure, all air shall be expelled from the pipe. If necessary to accomplish this, taps shall be made at points of higher elevation and afterwards plugged.

2. Test sections shall not exceed 1 mile (1.6 km) and in the event more than 1 mile (1.6 km) of water main is tested, the permissible leakage will remain at the amount determined for 1 mile (1.6 km) of pipe.

3. Hydrostatic testing shall conform to AWWA C600.

B. Testing PVC Water Main:

1. The test shall be made at a pressure of 150 pounds per square inch (1 MPa) gage minimum. Full pressure shall be held for at least two (2) hours.

2. Any faulty pipe fitting, gate valves or other accessories which permit leaks during testing shall be replaced by CONTRACTOR with sound material and the test shall be repeated until specified requirements are met.

3. The maximum permissible leakage measured by water meter from the section of main tested under pressure, shall not exceed a rate of 10 U.S. gallons, per inch diameter of main, per mile of pipe, in 24 hours for each section tested.

a. No pipe installation will be accepted if the leakage is greater than the allowable leakage calculated in accordance with the following formula:

$$L = \frac{S * D * (P)^{1/2}}{148{,}000}$$

Where: L = allowable leakage, in gallons per hour
S = length of pipe tested, in feet
D = nominal diameter of the pipe, in inches
P = average test pressure during the leakage test, in pounds per square inch (gauge)

Allowable Leakage per 1000 Feet of PVC Water Main Tested

Average Pressure (psi)	Nominal Pipe Diameter in Inches											
	3	4	6	8	10	12	14	16	18	20	24	30
175	0.27	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15	2.68
150	0.25	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99	2.48
125	0.23	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81	2.27

3.18 Flushing

A. After completion of water main installation, flush the new mains, valves, hydrants and appurtenances completely and as acceptable to ENGINEER.

B. Heavily chlorinated water discharged from a disinfected system shall be controlled adequately to protect any surface water resource or adjacent property from potential environmental damage, or from creation of a hazard to traffic.

C. Remove and dispose of all temporary installations at completion of the flushing operation.

D. After flushing, and prior to final approval of the system, CONTRACTOR shall pump down all fire hydrants and verify that the hydrant valve is properly seated to prevent the hydrant standpipe from filling with water.

3.19 Disinfection

A. General:

1. Potable water pipelines, except those appurtenant to hydraulic structures, shall be disinfected in accordance with the requirements of ANSI/AWWA C651 using the Continuous-Feed Method as modified herein.

B. Chlorination:

1. The liquid mixture shall be applied by means of a solution-feed chlorinating device.

2. CONTRACTOR shall install corporation stop and feed chlorine solution through the corporation stop at the beginning of the main or valved section.

3. A slow flow of water shall be let into the main approximately at the point of injection of the chlorine solution, at a rate such that the chlorine dosage of the entering water shall be at least 50 mg/l; free chlorine concentration at initial chlorination shall be a minimum of 25 mg/l.

4. An open discharge shall be maintained at the far end of the section of main being chlorinated, and the introduction of chlorine solution and water shall continue until the water discharging at the far end shall carry the required dosage of chlorine.

5. As the main is filled with chlorinated water, each outlet from the main shall be opened and sufficient water drawn off to assure that the full dosage of chlorine reaches each outlet.

6. Back pressure causing a reversal of flow in the main being chlorinated shall be prevented, and pressure in the main shall be held down to a point which will make it impossible for chlorinated water to be forced into other sections of the main or water system.

7. If the chlorine residual shall be less than 10 mg/l at the end of 24 hours, further application of chlorine shall be made and the retention period repeated until the required 10 mg/l residual is obtained.

C. Repetition of Test:

1. The disinfection testing procedure shall be repeated if the initial tests fail to produce satisfactory results.

2. Two consecutive satisfactory test results shall be required after any unsatisfactory test.

3. The tablet method shall not be used for repeated disinfection.

3.20 Water for Cleaning, Testing and Disinfection

A. Water for cleaning, testing and disinfection shall be obtained from a potable water supply. CONTRACTOR shall provide all water required at his own expense and shall make all necessary arrangements with the authority which controls the source of water system and shall be governed in his use of water by all rules and regulations imposed thereon by said authority.

B. CONTRACTOR shall provide and remove temporary connections between the source water system and the mains constructed under this contract. All temporary connections shall meet the approval of the ENGINEER, the authority controlling the source water system, and Public Health authorities having jurisdiction.

C. CONTRACTOR shall be responsible for the safe disposal of chlorinated water flushed from water mains following disinfection procedures. CONTRACTOR shall be responsible for disposing of disinfecting solution in a manner in accordance one of the following approved manners:

1. Discharge chlorinated water directly into a nearby sanitary sewer provided that the water will receive subsequent treatment and disposal by a properly permitted wastewater treatment plant.

2. Dechlorination may be required by the wastewater treatment plant prior to receiving the discharge water.

   a. CONTRACTOR must obtain written permission from the wastewater treatment plant prior to discharge and shall verify whether or not dechlorination is necessary prior to disposal.

   b. CONTRACTOR shall submit a copy of the written authorization from the wastewater treatment plant to ENGINEER and the OWNER prior to disposal.

3. Discharge chlorinated water to a surface water body, either directly or indirectly (i.e., through a storm sewer).

   a. Prior to discharging, CONTRACTOR shall obtain a National Pollutant Discharge Elimination System (NPDES) general discharge permit, and shall comply with the associated monitoring and reporting requirements of the issuing agency, including dechlorination.

   b. CONTRACTOR shall submit a copy of the NPDES permit to the ENGINEER and the OWNER prior to disposal.

4. Discharge chlorinated water to the ground under Act 451 of the Part 31 Rules.

   a. Prior to discharging, CONTRACTOR shall dechlorinate the water to below 4 milligrams per liter (mg/L).

   b. Following dechlorination, CONTRACTOR shall discharge to an area large enough, and with suitable soils, to prevent site runoff.

5. CONTRACTOR must obtain written permission from the landowner where the discharge is to take place and written verification that dechlorination is or is not

necessary prior to disposal and that a value of less than 4 mg/L of chlorine is present within the water.

a. CONTRACTOR shall submit a written copy both the ENGINEER and the OWNER prior to disposal.

3.21 Bacteriological Analysis

A. General:

1. Prior to placing a water main in service, not less than two (2) consecutive water samples taken 24 hours apart for bacteriological analysis shall be collected and each analysis shall show results meeting state and local drinking water standards.

2. Samples will be taken at locations indicated in ANSI/AWWA C651 and will be tested for coliform organisms and heterotrophic plate count according to the latest edition of the *Standard Methods for the Examination of Water and Wastewater*.

3. CONTRACTOR shall collect water samples and cause analyses to be made at his own expense. Samples shall be collected in accordance with AWWA C651. Testing laboratory and sample collection shall meet the approval of public agency having jurisdiction.

4. If disinfection fails to produce satisfactory bacteriological counts, the pipe shall be reflushed and will be resampled and retested.

   a. If counts from analysis of the second samples exceed the criteria in Standard methods, the pipe shall be re-disinfected and will be resampled and retested until satisfactory results are obtained.

   b. CONTRACTOR shall be responsible for all repeat bacteriological testing costs.

B. Sampling:

1. Per AWWA Standards, no sampling stations shall be at a distance greater than 1,200 feet.

2. Mains shall be flushed at an adequate velocity prior to sampling to remove any debris remaining in the pipe.

3. Sampling must be accomplished by a certified treatment/distribution operator or an employee of a certified laboratory. This certification will be evidenced in the approved plan.

4. At OWNER's discretion, the source water will be sampled or the nearest water quality sample station's most recent results will be used to determine the baseline water quality.

5. Samples must be collected from extreme ends, all branches of the new main and at a minimum 300-foot interval. The sample points will also be part of the approved plan.

6. The temperature and total chlorine residual will be measured with a field test kit and recorded by the sampler on the "chain of custody" form.

7. After another 24-hour period, a second set of samples will be collected from the same sample points.

8. Both sets will be analyzed for total and fecal coliform presence/absence and heterotrophic plate count.

9. OWNER reserves the right to sample for bacteria at its own discretion with notice.

C. Laboratory Report:

1. General:

a. Lab results will be reported on a chain of custody, lab work sheet, or summary letter imprinted with the laboratory's name, address, and phone number.

(1) The report will include the field tests and laboratory analysis.
(2) The report will be signed by the laboratory director.

b. It will be OWNER's right, and responsibility to reject the report if any data is missing or suspect due to conflicting indications.

3.22 Cleaning (Pigging)

A. When required in the plans or specifications, water main shall be mechanically cleaned. Cleaning shall be with a metal bodied, mandrel type solid plug (pig) with scrapers. The pig shall be pulled or otherwise propelled through the entire line prior to testing or connecting to any existing water main.

End of Section

Appendix A

Davis Bacon Wage Decision

"General Decision Number: MI20260001 06/25/2026

State: Michigan

Construction Types: Highway

Counties: Michigan Counties of
Alcona, Alger, Allegan, Alpena, Antrim,
Arenac, Baraga, Barry, Bay, Benzie,
Berrien, Branch, Calhoun, Cass,
Charlevoix, Cheboygan, Chippewa, Clare,
Clinton, Crawford, Delta, Dickinson,
Eaton, Emmet, Genesee, Gladwin, Gogebic,
Grand Traverse, Gratiot, Hillsdale,
Houghton, Huron, Ingham, Ionia, Iosco,
Iron, Isabella, Jackson, Kalamazoo,
Kalkaska, Kent, Keweenaw, Lake, Lapeer,
Leelanau, Lenawee, Livingston, Luce,
Mackinac, Macomb, Manistee, Marquette,
Mason, Mecosta, Menominee, Midland,
Missaukee, Monroe, Montcalm,
Montmorency, Muskegon, Newaygo, Oakland,
Oceana, Ogemaw, Ontonagon, Osceola,
Oscoda, Otsego, Ottawa, Presque Isle,
Roscommon, Saginaw, Sanilac,
Schoolcraft, Shiawassee, St Clair, St
Joseph, Tuscola, Van Buren, Washtenaw,
Wayne and Wexford

Modification Number	Publication Date
1	01/09/2026
2	05/18/2026
3	06/25/2026

CARP0004-004 06/01/2025

	Rates	Fringes
CARPENTER: PILEDRIVER (REMAINDER OF STATE)	$ 35.57	21.54

CARP0004-005 06/01/2025

	Rates	Fringes
CARPENTER: PILEDRIVER (LIVINGSTON (TOWNSHIPS OF BRIGHTON, DEERFIELD, GENOA, HARTLAND, OCEOLA & TYRONE), MACOMB, MONROE, OAKLAND, SANILAC, ST. CLAIR AND WAYNE COUNTIES)	$ 41.37	28.69

ELEC0017-005 06/01/2025

	Rates	Fringes
LINE CONSTRUCTION: OPERATOR B (SHALL BE PROFICIENT IN OPERATING ANY 2 OF THE ABOVE MENTIONED PIECES OF EQUIPMENT LISTED UNDER OPERATOR A.)	$ 38.98	20.26
LINE CONSTRUCTION: OPERATOR A (SHALL BE PROFICIENT IN OPERATING ALL POWER EQUIPMENT INCLUDING:		

BACKHOE, EXCAVATOR, DIRECTIONAL BORE AND
BOOM/DIGGER TRUCK.).....$ 41.71 21.16
LINE CONSTRUCTION: JOURNEYMAN SPECIALIST
JOURNEYMAN SPECIALIST: REFERS TO A CREW OF ONLY ONE
PERSON WORKING ALONE.....$ 56.65 26.09
LINE CONSTRUCTION: JOURNEYMAN SIGNAL TECH,
COMMUNICATIONS TECH, TOWER TECH & FIBER OPTIC
SPLICERS.....$ 49.26 23.66
LINE CONSTRUCTION: GROUNDMAN/DRIVER.....$ 33.32 18.40

ENGI0324-003 06/01/2025

	Rates	Fringes
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 18- OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....	$ 35.78	28.25
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 17- COMPRESSOR OR WELDER OPERATOR (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....	$ 32.29	15.40
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 16- FORKLIFT AND 1 DRUM HOIST (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....	$ 46.77	28.25
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 15- HOISTING OPERATOR; 2 DRUM HOIST AND RUBBER TIRED BACKHOE (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....	$ 49.97	28.25
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 14- CRANE OPERATOR ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON,		

LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 51.61 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 13- CRANE OPERATOR; JOB MECHANIC AND 3 DRUM HOIST AND EXCAVATOR (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 50.61 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 12- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 120' OR LONGER ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 51.97 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 11- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 120' OR LONGER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 50.97 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 10- TOWER CRANE & DERRICK OPERATOR (WHERE OPERATOR'S WORK STATION IS 50 FT. OR MORE ABOVE FIRST SUB-LEVEL) ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 52.70 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 9- TOWER CRANE & DERRICK OPERATOR (WHERE OPERATOR'S WORK STATION IS 50 FT. OR MORE ABOVE FIRST SUB-LEVEL) (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB,

MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 51.70 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 8- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 140' OR LONGER ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 53.15 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 7- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 140' OR LONGER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 52.15 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 6- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 220' OR LONGER ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 53.42 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 5- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 220' OR LONGER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 52.42 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 4- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 300' OR LONGER ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST.

CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 54.92 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 3- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 300' OR LONGER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 53.92 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 2- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 400' OR LONGER ON A CRANE THAT REQUIRES AN OILER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 56.42 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 1- ENGINEER WHEN OPERATING COMBINATION OF BOOM AND JIB 400' OR LONGER (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LENAWEE, LIVINGSTON, MACOMB, MIDLAND, MONROE, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, ST. CLAIR, SANILAC, SHIAWASSEE, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:) FOOTNOTE: PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY AND CHRISTMAS DAY.....$ 55.42 28.25

ENGI0324-004 06/01/2025

	Rates	Fringes
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 6- OILER AND FIRE TENDER (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....	$ 35.78	28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 6-OILER AND FIRE TENDER. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB

400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 35.78 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 5-AIR COMPRESSOR, WELDER, GENERATORS, CONVEYORS. (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 32.29 15.40

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 5-AIR COMPRESSOR, WELDER, GENERATORS, CONVEYORS. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 32.29 15.40

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 4- AIR TUGGER (SINGLE DRUM), MATERIAL HOIST PUMP 6"" OR OVER, ELEVATORS, BROKK CONCRETE BREAKER. (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 46.77 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 4- AIR TUGGER (SINGLE DRUM), MATERIAL HOIST PUMP 6"" OR OVER, ELEVATORS, BROKK CONCRETE BREAKER. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 46.77 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 3- REGULAR EQUIPMENT OPERATOR, CRAE, DOZER, LOADER, HOIST, STRADDLE WAGON, MECHANIC, GRADER AND HYDRO EXCAVATOR. (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF

JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 50.61 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 3- REGULAR EQUIPMENT OPERATOR, CRAE, DOZER, LOADER, HOIST, STRADDLE WAGON, MECHANIC, GRADER AND HYDRO EXCAVATOR. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 50.61 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 2- CRANE OPERATOR WITH MAIN BOOM & JIB 140' OR LONGER, TOWER CRANE; GANTRY CRANE; WHIRLEY DERRICK. (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 52.15 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 2- CRANE OPERATOR WITH MAIN BOOM & JIB 140' OR LONGER, TOWER CRANE; GANTRY CRANE; WHIRLEY DERRICK. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 52.15 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 1- CRANE OPERATOR WITH MAIN BOOM & JIB 400', 300', OR 220' OR LONGER. (AREA 2: ANTRIM, BREEZE, CHARLEVOIX, EMMET, GRAND TRAVERSE, KALKASKA, LEELANAU, MISSAUKEE, AND WEXFORD COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB 400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 55.02 28.25

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: GROUP 1- CRANE OPERATOR WITH MAIN BOOM & JIB 400', 300', OR 220' OR LONGER. (AREA 1: ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, EATON, HILLSDALE, IONIA, KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, AND VAN BUREN COUNTIES) FOOTNOTE: CRANE OPERATOR WITH MAIN BOOM AND JIB 300; OR LONGER: $1.50 ADDITIONAL TO THE GROUP 1 RATE. CRANE OPERATOR WITH MAIN BOOM AND JIB

400; OR LONGER: $3.00 ADDITIONAL TO THE GROUP 1 RATE. PAID HOLIDYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.....$ 55.02 28.25

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	Rates	Fringes
OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 5- FIRE PERSON, OILER (AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKW, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, RUSCOLA, VAN BUREN, AND WEXFORD COUNTIES)...	$ 30.35	12.10
OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 5- FIRE PERSON, OILER (AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASTENAW, AND WAYNE COUNTIES).....	$ 30.35	12.10
OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 4- BOILER; CONCRETE SAW (40 HP OR OVER); CURING MACHINE (SELF-PROPELLED); FARM TRACTOR (WITH ATTACHMENT); FINISHING MACHINE (CONCRETE); HYDRAULIC PIPE PUSHING MACHINE; MULCHING EQUIPMENT; PUMPS (2 OR MORE UP TO 4-IN. DISCHARGE, IF USED 3 OR MORE HOURS A DAY, GAS OR DIESEL POWERED0-EXCLUDING SUBMERSIBLE PUMPS); ROLLER (OTHER THAN ASPHALT); STUMP REMOVER; TRENCHER (SERVICE); VIBRATING COMPACTION EQUIPMENT, SELF-PROPELLED (6 FT. WIDE OR OVER); SWEEPER (WAYNE TYPE); WATER WAGON AND EXTEND-A BOOM FORKLIFT. (AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKW, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, RUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....	$ 39.95	25.25
OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 4- BOILER; CONCRETE SAW (40 HP OR OVER); CURING MACHINE (SELF-PROPELLED); FARM TRACTOR (WITH ATTACHMENT); FINISHING MACHINE (CONCRETE); HYDRAULIC PIPE PUSHING MACHINE; MULCHING EQUIPMENT; PUMPS (2 OR MORE UP TO 4-IN. DISCHARGE, IF USED 3 OR MORE HOURS A DAY, GAS OR DIESEL POWERED0-EXCLUDING SUBMERSIBLE		

PUMPS); ROLLER (OTHER THAN ASPHALT); STUMP REMOVER; TRENCHER (SERVICE); VIBRATING COMPACTION EQUIPMENT, SELF-PROPELLED (6 FT. WIDE OR OVER); SWEEPER (WAYNE TYPE); WATER WAGON AND EXTEND-A BOOM FORKLIFT. (AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASTENAW, AND WAYNE COUNTIES).....$ 39.95 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 3- AIR COMPRESSORS (600 CFM OR LARGER); AIR COMPRESSORS (2 OR MORE-LESS THAN 600 CFM); BOOM TRUCK (NON-SWINGING, NON-POWERED TYPE BOOM); CONCRETE BREAKER (SELF-PROPELLED OR TRUCK MOUNTED-INCLUDES COMPRESSOR); CONCRETE PAVER (1 DRUM-1/2 YD. OR LARGER); ELEVATOR (OTHER THAN PASSENGER); MAINTENACNE PERSON; PUMP (2 OR MORE-4-IN. UP TO 6-IN. DISCHARGE- GAS OR DIESEL POWERED- EXCLUDING SUBMERSIBLE PUMPS); PUMPCRETE MACHINE (AND SIMILAR EQUIPMENT); WAGON DRILL (MULTIPLE); WELDING MACHINE OR GENERATOR(2 OR MORE- 300 AMP. OR LARGER - GAS OR DIESEL POWERED). (AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKW, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, RUSCOLA, VAN BUREN, AND WEXFORD COUNTIES)...$ 40.52 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 3- AIR COMPRESSORS (600 CFM OR LARGER); AIR COMPRESSORS (2 OR MORE-LESS THAN 600 CFM); BOOM TRUCK (NON-SWINGING, NON-POWERED TYPE BOOM); CONCRETE BREAKER (SELF-PROPELLED OR TRUCK MOUNTED-INCLUDES COMPRESSOR); CONCRETE PAVER (1 DRUM-1/2 YD. OR LARGER); ELEVATOR (OTHER THAN PASSENGER); MAINTENACNE PERSON; PUMP (2 OR MORE-4-IN. UP TO 6-IN. DISCHARGE- GAS OR DIESEL POWERED- EXCLUDING SUBMERSIBLE PUMPS); PUMPCRETE MACHINE (AND SIMILAR EQUIPMENT); WAGON DRILL (MULTIPLE); WELDING MACHINE OR GENERATOR(2 OR MORE- 300 AMP. OR LARGER - GAS OR DIESEL POWERED). (AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASTENAW, AND WAYNE COUNTIES).....$ 40.52 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 2- BOOM TRUCK (POWER SWING TYPE BOOM); CRUSHER; HOIST; PUMP (1 OR MORE - 6-IN. DISCHARGE OR LARGER- GAS OR DIESEL-POWERED OR POWERED BY GENERATOR OF 300 AMPERES OR MORE- INCLUSIVE OF GENERATOR); SIDE BOOM TRACTOR (SMALLER THAN TYPE D-4 OR EQUIVALENT); TRACTOR (PNEU-TIRED, OTHER THAN BACKHOE OR FRONT END LOADER); TRENCHER (8-FT. DIGGING CAPACITY AND SMALLER); VAC TRUCK AND END DUMP OPERATOR. (AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON,

EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKW, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, RUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 41.25 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 2- BOOM TRUCK (POWER SWING TYPE BOOM); CRUSHER; HOIST; PUMP (1 OR MORE - 6-IN. DISCHARGE OR LARGER- GAS OR DIESEL- POWERED OR POWERED BY GENERATOR OF 300 AMPERES OR MORE- INCLUSIVE OF GENERATOR); SIDE BOOM TRACTOR (SMALLER THAN TYPE D-4 OR EQUIVALENT); TRACTOR (PNEU-TIRED, OTHER THAN BACKHOE OR FRONT END LOADER); TRENCHER (8-FT. DIGGING CAPACITY AND SMALLER); VAC TRUCK AND END DUMP OPERATOR. (AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASTENAW, AND WAYNE COUNTIES)...$ 41.25 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 1- BACKFILLER TAMPER; BACKHOE; BATCH PLANT OPERATOR (CONCRETE); CLAMSHELL; CONCRETE PAVER (2 DRUMS OR LARGER); CONVERYOR LOADER (EUCLID TYPE); CRANE (CRAWLER, TRUCK TYPE OR PILE DRIVING); DOZER; DRAGLINE; ELEVATING GRADER; ENDLOADER; GRADALL (AND SIMILAR TYPE MACHINE); GRADER; MECHANIC; POWER SHOVEL; ROLLER (ASPHALT); SCRAPER (SELF-PROPELLED OR TRACTOR DRAWN); SIDE BOOM TRACTOR (TYPE D-4 OR EQUIVALENT AND LARGER); SLIP FORM PAVER; SLOPE PAVER; TRENCHER (OVER 8 FT. DIGGING CAPACITY); WELL DRILLING RIG; CONCRETE PUMP WITH BOOM OPERATOR; HYDRO EXCAVATOR. (AREA 2: ALCONA, ALLEGAN, ALGER, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KWEENAW, LAKW, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. JOSEPH, RUSCOLA, VAN BUREN, AND WEXFORD COUNTIES)...$ 45.98 25.25

OPERATOR: POWER EQUIPMENT, UNDERGROUND CONSTRUCTION (INCLUDING SEWER): GROUP 1 (AREA 1: GENESEE, LAPEER, LIVINGSTON, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASTENAW, AND WAYNE COUNTIES)...$ 45.98 25.25

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	Rates	Fringes

POWER EQUIPMENT OPERATORS:, AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION: GROUP 4- BOILER FIRE TENDER; CONCRETE BREAKER; OILER; FIRE TENDER; TRENCHER (SERVICE); FLEXPLANE OPERATOR; CLEFTPLANE OPERATOR; ROLLER OPERATOR (OTHER THAN ASPHALT); CURING EQUIPMENT OPERATOR (SELF-PROPELLED); POWER BIN

OPERATOR; PLANT DRIER OPERATOR (ASPHALT); VIBRATORY COMPCTION EQUIPMENT OPEARTOR (6 FT. WIDE OR OVER); GUARD POST DRIVER OPERATOR (POWER DRIVEN); ALL MULCHING EQUIPMENT; STUMP REMOVER; CONCRETE PUM (UNDER 3-IN.); MESH INSTALLER (SELF-PROPELLED); END DUMP; SKID STEER. .....$ 37.77 25.25

POWER EQUIPMENT OPERATORS:, AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION: GROUP 3- SCREENING PLANT OPERATOR; WASHING PLANT OPERATOR; CRUSTHER OPERATOR; BACKHOE (WITH 3/8 YD. BUCKET OR LESS); SIDE BOOM TRACTOR (SMALLER THAN D-4 TYPE OR EQUIVALENT); SWEEPER (WAYNE TYPE AND SIMILAR EQUIPMENT); GREASE TRUCK; AIR COMPRESSOR OPERATOR (600 CU. FT. PER MIN OR MORE); AIR COMPRESSOR OPERATOR (TWO OR MORE, LESS THAN 600 CFM); END LOADER OPERATOR (1 YARD CAPACITY AND OVER); SIDE BOOM TRACTOR (TYPE D OR EQUIVALENT OR LARGER); ENDLOADER OPERATOR (UNDER 1 YARD CAPACITY); TRENCHER (SERVICE) .....$ 38.33 25.25

POWER EQUIPMENT OPERATORS:, AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION: GROUP 2- ASPHALT PLANT OPERATOR; CRANE OPERATOR (DOES NOT INCLUDE WORK ON BRIDGE CONSTRUCTION PROJECTS WHEN THE CRANE OPERATOR IS ERECTING STRUCTURAL COMPONENTS); DRAGLINE OPERATOR; SHOVEL (EXCAVATOR) OPERATOR; LOCOMOTIVE OPERATOR; ELEVATING GRADER OPERATOR; PILE DRIVING OPERATOR; ROLLER OPERATOR (ASPHALT); BLADE GRADER OPERATOR; TRNECHING MACHINE OPERATOR (LADDER OR WHEEL TYPE); AUTO-GRADER; SELF-PROPELLED OR TRACTOR-DRAWN SCRAPER; CONVEYOR LOADER OPERATOR (EUCLID TYPE); BULLDOZER; HOISTING ENGINEER; TRACTOR OPERATOR; FINISHING MACHINE OPERATOR (ASPHALT); MECHANIC; PUMP OPERATOR (6-IN. DISCHARGE OR OVER, GAS, DIESEL POWERED OR GENERATOR OF 300 AMP. OR LARGER); SHOULDERING OR GRAVEL DISTRIBUTING MACHINE OPERATOR (SELF-PROPELLED); BACKHOE (WITH OVER 3/8 YD. BUCKET); SIDE BOOM TRACTOR (TYPE D-4 OR EQUIVALENT OR LARGER); TUBE FINISHER (SLIP FORM PAVING); GRADALL (AND SIMILAR TYPE MACHINE); ASPHALT PLANNER (SELF-PROPELLED); BATCH PLANT (CONCRETE-CENTRAL MIX); SLURRY MACHINE (ASPHALT); CONCRETE PUMP (3 IN.C AND OVER); ROTO-MILL; SWINGING BOOM TRUCK (OVER 12 TON CAPACITY); HYDRO DEMOLISHER (WATER BLASTER); FARM-TYPE TRACTOR WITH ATTACHED PAN; VACUUM TRUCK OPERATOR; BATCH PLANT (CONCRETE DRY BATCH); CONCRETE SAW OPERATOR (40 H.P. OR OVER); TRACTOR OPERATOR (FARM TYPE); FINISHING MACHINE OPERATOR (CONCRETE); GRADER OPEARTOR (SELF-PROPELLED FINE GRADE OR FORM (CONCRETE)); TRACTOR OPERATOR (FARM TYPE WITH ATTACHMENT); WAGON DRILL OPERATOR; BOOM OR WINCH HOIST TRUCK OPERATOR. .....$ 45.06 25.25

POWER EQUIPMENT OPERATORS:, AIRPORT, BRIDGE & HIGHWAY CONSTRUCTION: GROUP 1- PAVER OPERATOR (5 BAGS OR MORE); SLIP FORM PAVER; ASPHALT PAVER (SELF-PROPELLED); SHOVEL (EXCVAVATOR) INSTALLING UTILITIES OVER 20 FEET IN DEPTH.....$ 46.21 25.25

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	Rates	Fringes

OPERATOR: POWER EQUIPMENT, STEEL ERECTION: REGULAR OPERATOR (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND

SCHOOLCRAFT COUNTIES:).....$ 47.12 25.00
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: OILER AND FIREMAN (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 41.76 25.00
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: MECHANIC WITH TRUCK AND TOOLS (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 48.90 25.00
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: CRANE OPERATOR, MAIN BOOM & JIB 220' OR LONGER (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 50.66 25.00
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: CRANE OPERATOR, MAIN BOOM & JIB 140' OR LONGER (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 50.07 24.60
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: CRANE OPERATOR, MAIN BOOM & JIB 120' OR LONGER (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 49.77 25.00
OPERATOR: POWER EQUIPMENT, STEEL ERECTION: COMPRESSOR, WELDER AND FORKLIFT (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES:).....$ 43.30 25.00

ENGI0324-008 10/01/2023

	Rates	Fringes
OPERATOR: POWER EQUIPMENT, SEWER RELINING: GROUP 2- OPERATION OF HOT WATER HEATERS AND CIRCULATION SYSTEMS, WATER JETTERS AND VACUUM AND MECHANICAL DEBRIS REMOVAL SYSTEMS. (ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MAR...	$ 35.33	15.44
OPERATOR: POWER EQUIPMENT, SEWER RELINING: GROUP 1- OPERATION OF AUDIO-VISUAL CLOSED CIRCUIT TV SYSTEM, INCLUDING REMOTE IN-GROUND CUTTER AND OTHER EQUIPMENT USED IN CONNECTION WITH THE CCTV SYSTEM. (ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GENESEE, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LIVINGSTON, LUCE, MACKINAC, MACOMB, MANISTEE, MAR.....	$ 37.37	15.44

ENGI0325-012 05/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATORS - GAS DISTRIBUTION AND DUCT INSTALLATION WORK: GROUP 2- DOZER (LESS THAN D-6 EQUIVALENT), ENDLOADER (UNDER 2 YD. CAPACITY), SIDE BOOM (UNDER D-4 CAPACITY), BACKFILLER, PUMPS (1 OR 2 OF 6-INCH DISCHARGE OR GREATER), BOOM TRUCK (WITH POWERED BOOM), TRACTOR (WHEEL TYPE OTHER THAN BACKHOE OR FRONT ENDLOADER). TAMPER (SELF-PROPELLED), BOOM TRUCK (WITH NON-POWERED BOOM), CONCRETE SAW (20 HP OR LARGER), PUMPS (2 TO 4 UNDER 6-INCH DISCHARGE), COMPRESSOR (2 OR MORE OR WHEN ONE IS USED CONTINUOUSLY INTO THE SECOND DAY) AND TRENCHER(SERVICE). OILER, HYDRAULIC PIPE PUSHING MACHINE, GREASE PERSON AND HYDROSTATIC TESTING OPERATOR. SCOPE OF WORK: THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF PIPELINES TRANSPORTING GAS VAPORS WITHIN CITIES, TOWNS, SUBDIVISIONS, SUBURBAN AREAS, OR WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING PRIVATE METER SETTINGS OF PRIVATE INDUSTRIAL, GOVERNMENTAL OR OTHER PREMISES, MORE COMMONLY REFERRED TO AS ""DISTRIBUTION WORK,"" STARTING FROM THE FIRST METERING STATION, CONNECTION, SIMILAR OR RELATED FACILITY, OF THE MAIN OR CROSS COUNTRY PIPELINE AND INCLUDING DUCT INSTALLATION.....	$ 36.05	25.25
POWER EQUIPMENT OPERATORS - GAS DISTRIBUTION AND DUCT INSTALLATION WORK: GROUP 1- BACKHOE, CRANE, GRADER, MECHANIC, DOZER (D-6 EQUIVALENT OR LARGER), SIDE BOOM (D-4 EQUIVALENT OR LARGER), TRENCHER(EXCEPT SERVICE), ENDLOADER (2 YD. CAPACITY OR GREATER). SCOPE OF WORK: THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF PIPELINES TRANSPORTING GAS VAPORS WITHIN CITIES, TOWNS, SUBDIVISIONS, SUBURBAN AREAS, OR WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING PRIVATE METER SETTINGS OF PRIVATE INDUSTRIAL, GOVERNMENTAL OR OTHER PREMISES, MORE COMMONLY REFERRED TO AS ""DISTRIBUTION WORK,"" STARTING FROM THE FIRST METERING STATION, CONNECTION, SIMILAR OR RELATED FACILITY, OF THE MAIN OR CROSS COUNTRY PIPELINE AND INCLUDING DUCT INSTALLATION.....	$ 39.78	25.25

IRON0008-007 06/01/2024

	Rates	Fringes
IRONWORKER: GENERAL CONTRACTS LESS THAN $10,000,000 (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES) PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, JULY 4TH, LABOR DAY, THANKSGIVING DAY & CHRISTMAS DAY.....	$ 39.91	32.32
IRONWORKER: GENERAL CONTRACTS $10,000,000 OR GREATER (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES) PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, JULY 4TH, LABOR DAY, THANKSGIVING DAY & CHRISTMAS DAY.....	$ 39.91	32.32
IRONWORKER - PRE-ENGINEERED METAL BUILDING ERECTOR (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES) PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, JULY 4TH, LABOR DAY, THANKSGIVING DAY		

& CHRISTMAS DAY.....$ 23.70 6.95

IRON0025-002 06/01/2025

	Rates	Fringes
IRONWORKER: REINFORCING (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:)	$ 36.55	32.87
IRONWORKER: ORNAMENTAL AND STRUCTURAL (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES:)	$ 36.55	35.93
IRONWORKER - PRE-ENGINEERED METAL BUILDING ERECTOR: BAY, GENESEE, LAPEER, LIVINGSTON (EAST OF BURKHARDT ROAD), MACOMB, MIDLAND, OAKLAND, SAGINAW, ST. CLAIR, THE UNIVERSITY OF MICHIGAN, WASHTENAW (EAST OF U.S. 23) & WAYNE (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOMB, MIDLAND, MONTMORENCY, OAKLAND, OGEMAW, OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW, SANILAC, SHIAWASSEE, ST. CLAIR, TUSCOLA, WASHTENAW AND WAYNE COUNTIES	$ 30.02	28.13
IRONWORKER - PRE-ENGINEERED METAL BUILDING ERECTOR: ALLEGAN, ANTRIM, BARRY, BENZIE, BRANCH, CALHOUN, CHARLEVOIX, EATON, EMMET, GRAND TRAVERSE, HILLSDALE, IONIA, KALAMAZOO, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH, VAN BUREN AND WEXFORD COUNTIES: (ALCONA, ALPENA, ARENAC, BAY, CHEBOYGAN, CLARE, CLINTON, CRAWFORD, GENESEE, GLADWIN, GRATIOT, HURON, INGHAM, IOSCO, ISABELLA, JACKSON, LAPEER, LIVINGSTON, MACOM	$ 28.80	27.43

IRON0055-005 07/01/2022

	Rates	Fringes
IRONWORKER: PRE-ENGINEERED METAL BUILDINGS (LENAWEE AND MONROE COUNTIES)	$ 23.59	19.35
IRONWORKER: ALL OTHER WORK (LENAWEE AND MONROE COUNTIES)	$ 33.00	27.20

IRON0292-003 06/01/2020

	Rates	Fringes
IRONWORKER: INCLUDING PRE-ENGINEERED METAL BUILDING ERECTOR (BERRIEN AND CASS COUNTIES:)	$ 31.75	22.84

LABO0005-006 10/01/2022

	Rates	Fringes
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (SANILAC AND ST. CLAIR COUNTIES - ZONE 5)	$ 26.21	16.62
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK		

PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (SANILAC AND ST. CLAIR COUNTIES - ZONE 5)	$ 24.75	16.35
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (OAKLAND COUNTY AND THE NORTHEAST PORTION OF LIVINGSTON COUNTY BORDERED BY OAK GROVE ROAD ON THE WEST AND M-59 ON THE SOUTH - ZONE 2)	$ 28.93	16.90
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVEL A, B, C. (OAKLAND COUNTY AND THE NORTHEAST PORTION OF LIVINGSTON COUNTY BORDERED BY OAK GROVE ROAD ON THE WEST AND M-59 ON THE SOUTH - ZONE 2)	$ 29.93	16.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (MONROE COUNTY - ZONE 4)	$ 31.75	14.90
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (MONROE COUNTY - ZONE 4)	$ 31.75	14.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (MACOMB AND WAYNE COUNTIES - ZONE 1)	$ 28.93	16.90
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (MACOMB AND WAYNE COUNTIES - ZONE 1)	$ 29.93	16.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D (LIVINGSTON COUNTY (EAST OF OAK GROVE RD. AND SOUTH OF M-59, EXCLUDING THE CITY OF HOWELL); AND WASHTENAW COUNTY - ZONE 3)	$ 28.93	14.20
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (LIVINGSTON COUNTY (EAST OF OAK GROVE RD. AND SOUTH OF M-59, EXCLUDING THE CITY OF HOWELL); AND WASHTENAW COUNTY - ZONE 3)	$ 29.93	14.20
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (HILLSDALE, JACKSON AND LENAWEE COUNTIES - ZONE 4)	$ 27.13	14.95
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTETIVE EQUIPMENT; ALSO, LEVEL D. (HILLSDALE, JACKSON AND LENAWEE COUNTIES - ZONE 4)	$ 24.17	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - ZONE 7)	$ 23.20	13.80
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (GENESEE, LAPEER AND SHIAWASSEE COUNTIES - ZONE 7)	$ 24.20	13.80
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); LIVINGSTON COUNTY (WEST OF OAK GROVE RD., INCLUDING THE CITY OF HOWELL) - ZONE 6)	$ 26.33	12.95
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (CLINTON, EATON AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); LIVINGSTON COUNTY (WEST OF OAK GROVE RD., INCLUDING THE CITY OF HOWELL) - ZONE 6)	$ 24.64	12.90

LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - ZONE 8)	$ 23.74	12.95
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (ARENAC, BAY, CLARE, GLADWIN, GRATIOT, HURON, ISABELLA, MIDLAND, OGEMAW, ROSCOMMON, SAGINAW AND TUSCOLA COUNTIES - ZONE 8)	$ 20.80	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - ZONE 9)	$ 20.80	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B OR C. (ALLEGAN, BARRY, BERRIEN, BRANCH, CALHOUN, CASS, IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); KALAMAZOO, KENT, LAKE, MANISTEE, MASON, MECOSTA, MONTCALM, MUSKEGON, NEWAYGO, OCEANA, OSCEOLA, OTTAWA, ST. JOSEPH AND VAN BUREN COUNTIES - ZONE 9)	$ 21.88	13.26
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B, OR C (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - ZONE 11)	$ 25.18	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D. (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES - ZONE 11)	$ 22.58	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: LEVELS A, B, OR C (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE, AND WEXFORD COUNTIES- ZONE 10)	$ 17.45	12.75
LABORERS - HAZARDOUS WASTE ABATEMENT: CLASS B (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE, AND WEXFORD COUNTIES- ZONE 10)	$ 18.64	12.90
LABORERS - HAZARDOUS WASTE ABATEMENT: WORK PERFORMED IN CONJUNCTION WITH SITE PREPARATION NOT REQUIRING THE USE OF PERSONAL PROTECTIVE EQUIPMENT; ALSO, LEVEL D(ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE, AND WEXFORD COUNTIES- ZONE 10)	$ 16.45	12.75
LABORERS - HAZARDOUS WASTE ABATEMENT: CLASS A (ALCONA, ALPENA, ANTRIM, BENZIE, CHARLEVOIX, CHEBOYGAN, CRAWFORD, EMMET, GRAND TRAVERSE, IOSCO, KALKASKA, LEELANAU, MISSAUKEE, MONTMORENCY, OSCODA, OTSEGO, PRESQUE ISLE, AND WEXFORD COUNTIES- ZONE 10)	$ 17.64	12.90

LABO0259-001 09/01/2025

	Rates	Fringes
LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 1- TUNNEL, SHAFT AND CAISSON LABORER, DUMP, SHANTY, HOG HOUSE TENDER, TESTING (ON GAS) AND WATCHMAN. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....	$ 30.13	22.75
LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 2- MANHOLE, HEADWALL, CATCH BASIN BUILDER, BRICKLAYER TENDER, MORTAR MACHINE AND MATERIAL MIXER. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....	$ 32.13	22.75
LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 3- AIR TOOL OPERATOR (JACKHAMMER, BUSH HAMMER AND GRINTER), FIRST BOTTOM, SECOND BOTTOM, CAGE TENDER, CAR PUSHER, CARRIER, CONCRETE, CONCRETE FORM, CONCRETE REPAIR, CEMENT INVERT LABORER, CEMENT FINISHER, CONCRETE SHOVELER, CONVEYOR, FLOOR, GASOLINE AND ELECTRIC TOOL OPERATOR, GUNITE, GROUT OPERATOR, WELDER, HEADING DINKY PERSON, INSIDE LOCK TENDER, PEA GRAVEL OPERATOR, PUMP, OUTSIDE LOCK TENDER, SCAFFOLD, TOP SIGNAL PERSON, SWITCH PERSON, TRACK, TUGGER, UTILITY PERSON, VIBRATOR, WINCH OPERATOR, PIPE JACKING, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.). SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....	$ 28.13	22.75
LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 4- TUNNEL, SHAFT, AND CAISSON MUCKER, BRACER, LINER PLATE, LONG HAUL DINKY DRIVER AND WELL POINT. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....	$ 23.97	16.93
LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 5- TUNNEL, SHAFT AND CAISSON MINER, DRILL RUNNER, KEY BOARD OPERATOR, POWER KNIFE OPERATOR, REINFORCED STEEL OR MESH (E.G. WIRE MESH, STELL MATS, DOWEL BARS, ETC.). SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER,		

SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....$ 24.22 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 6- DYNAMITE AND POWDER. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....$ 24.55 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. (AREA 1: MACOMB, OAKLAND, AND WAYNE COUNTIES).....$ 17.83 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 1- TUNNEL, SHAFT AND CAISSON LABORER, DUMP, SHANTY, HOG HOUSE TENDER, TESTING (ON GAS) AND WATCHMAN. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 32.13 17.95

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 2- MANHOLE, HEADWALL, CATCH BASIN BUILDER, BRICKLAYER TENDER, MORTAR MACHINE AND MATERIAL MIXER. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 34.40 17.95

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 3- AIR TOOL OPERATOR (JACKHAMMER, BUSH HAMMER AND GRINTER), FIRST BOTTOM, SECOND BOTTOM, CAGE TENDER, CAR PUSHER, CARRIER, CONCRETE, CONCRETE FORM, CONCRETE REPAIR, CEMENT INVERT LABORER, CEMENT FINISHER, CONCRETE SHOVELER, CONVEYOR, FLOOR, GASOLINE AND ELECTRIC TOOL OPERATOR, GUNITE, GROUT OPERATOR, WELDER, HEADING DINKY PERSON, INSIDE LOCK TENDER, PEA GRAVEL OPERATOR, PUMP, OUTSIDE LOCK TENDER, SCAFFOLD, TOP SIGNAL PERSON, SWITCH PERSON, TRACK, TUGGER, UTILITY PERSON, VIBRATOR, WINCH OPERATOR, PIPE JACKING, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.). SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF

EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 28.00 17.45

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 4- TUNNEL, SHAFT, AND CAISSON MUCKER, BRACER, LINER PLATE, LONG HAUL DINKY DRIVER AND WELL POINT. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 29.57 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 5- TUNNEL, SHAFT AND CAISSON MINER, DRILL RUNNER, KEY BOARD OPERATOR, POWER KNIFE OPERATOR, REINFORCED STEEL OR MESH (E.G. WIRE MESH, STELL MATS, DOWEL BARS, ETC.). SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 25.76 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 6- DYNAMITE AND POWDER. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 26.07 16.93

LABORERS - TUNNEL, SHAFT AND CAISSON: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: TUNNEL, SHAFT, AND CAISSON WORK OF EVERY TYPE AND DESCRIPTION AND ALL OPERATIONS INCIDENTAL THERETO, INCLUDING, BUT NOT LIMITED TO, SHAFTS AND TUNNELS FOR SEWERS , WATER, SUBWAYS, TRANSPORTATION, DIVERSION, SEWERAGE, CAVERNS, SHELTERS, AQUAFERS, RESERVOIRS, MISSILE SILOS AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION.(AREA 2: REMAINING COUNTIES).....$ 25.57 16.93

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LABORERS - OPEN CUT: GROUP 1- CONSTRUCTION LABORER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION

AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK.
(ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) ....$ 29.98 22.75
LABORERS - OPEN CUT: GROUP 2- MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK.
(ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES).....$ 31.98 22.75
LABORERS - OPEN CUT: GROUP 3- AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS, ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND

IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) .....$ 28.14 22.75

LABORERS - OPEN CUT: GROUP 4- TRENCH OR EXCAVATING GRADE PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) .....$ 23.71 16.72

LABORERS - OPEN CUT: GROUP 5- PIE LAYER (INCLUDING CROCK, METAL PIPE, MULTI-PLATE OR OTHER CONDUITS). SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS,

BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) .....$ 24.17 16.72

LABORERS - OPEN CUT: GROUP 6- GROUTING MAN, AUDIO-VIDUAL TELEVISION OPERATIONS AND ALL OTHER OPERATIONS IN CONNECTION WITH CLOSED CIRCUIT TELEVITION INSPECTION, PIPE CLEANING AND PIPE RELINING WORK AND THE INSTALLATION AND REPAIR OF WATER SERVICE PIPE AND APPURTENANCES. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) .....$ 22.00 16.72

LABORERS - OPEN CUT: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT

INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK.
(ZONE 1 - MACOMB, OAKLAND AND WAYNE COUNTIES) ......$ 17.84 16.72
LABORERS - OPEN CUT: GROUP 1- CONSTRUCTION LABORER.
SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK.
(ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).......$ 32.10 17.45
LABORERS - OPEN CUT: GROUP 2- MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF

AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 34.10 17.45

LABORERS - OPEN CUT: GROUP 3- AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS, ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 30.10 17.45

LABORERS - OPEN CUT: GROUP 4- TRENCH OR EXCAVATING GRADE PERSON. CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING

INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 25.10 16.72

LABORERS - OPEN CUT: GROUP 5- PIE LAYER (INCLUDING CROCK, METAL PIPE, MULTI-PLATE OR OTHER CONDUITS). CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 25.25 16.72

LABORERS - OPEN CUT: GROUP 6- GROUTING MAN, AUDIO-VIDUAL TELEVISION OPERATIONS AND ALL OTHER OPERATIONS IN CONNECTION WITH CLOSED CIRCUIT TELEVITION INSPECTION, PIPE CLEANING AND PIPE RELINING WORK AND THE INSTALLATION AND REPAIR OF WATER SERVICE PIPE AND APPURTENANCES. CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS,

FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 22.55 16.72

LABORERS - OPEN CUT: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 2 - LIVINGSTON COUNTY (EAST OF M-151 (OAK GROVE RD.)); MONROE AND WASHTENAW COUNTIES).....$ 22.11 16.72

LABORERS - OPEN CUT: GROUP 1- CONSTRUCTION LABORER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND

INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES) .....$ 30.29 17.45

LABORERS - OPEN CUT: GROUP 2- MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 32.29 17.45

LABORERS - OPEN CUT: GROUP 3- AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS, ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS

AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 28.29 17.45

LABORERS - OPEN CUT: GROUP 4- TRENCH OR EXCAVATING GRADE PERSON. CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 23.30 16.72

LABORERS - OPEN CUT: GROUP 5- PIE LAYER (INCLUDING CROCK, METAL PIPE, MULTI-PLATE OR OTHER CONDUITS). CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS,

ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 23.44 16.72

LABORERS - OPEN CUT: GROUP 6- GROUTING MAN, AUDIO-VIDUAL TELEVISION OPERATIONS AND ALL OTHER OPERATIONS IN CONNECTION WITH CLOSED CIRCUIT TELEVITION INSPECTION, PIPE CLEANING AND PIPE RELINING WORK AND THE INSTALLATION AND REPAIR OF WATER SERVICE PIPE AND APPURTENANCES. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 20.74 16.72

LABORERS - OPEN CUT: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND

GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 3 - CLINTON, EATON, GENESEE, HILLSDALE AND INGHAM COUNTIES; IONIA COUNTY (CITY OF PORTLAND); JACKSON, LAPEER AND LENAWEE COUNTIES; LIVINGSTON COUNTY (WEST OF M-151 OAK GROVE RD.); SANILAC, ST. CLAIR AND SHIAWASSEE COUNTIES).....$ 22.23 16.72

LABORERS - OPEN CUT: GROUP 1- CONSTRUCTION LABORER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 28.72 18.45

LABORERS - OPEN CUT: GROUP 2- MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER.SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL,

COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 30.72 18.45

LABORERS - OPEN CUT: GROUP 3- AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS, ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF

AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 26.72 18.45

LABORERS - OPEN CUT: GROUP 4- TRENCH OR EXCAVATING GRADE PERSON. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 22.33 16.72

LABORERS - OPEN CUT: GROUP 5- PIE LAYER (INCLUDING CROCK, METAL PIPE, MULTI-PLATE OR OTHER CONDUITS). SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION

AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 22.45 16.72

LABORERS - OPEN CUT: GROUP 6- GROUTING MAN, AUDIO-VIDUAL TELEVISION OPERATIONS AND ALL OTHER OPERATIONS IN CONNECTION WITH CLOSED CIRCUIT TELEVITION INSPECTION, PIPE CLEANING AND PIPE RELINING WORK AND THE INSTALLATION AND REPAIR OF WATER SERVICE PIPE AND APPURTENANCES. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON

COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 19.67 16.72

LABORERS - OPEN CUT: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 4 - ALCONA, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT AND HURON COUNTIES; IONIA COUNTY (EXCEPT THE CITY OF PORTLAND); IOSCO, ISABELLA, KALAMAZOO, KALKASKA, KENT, LAKE,LEELANAU, MANISTEE, MASON, MECOSTA, MIDLAND, MISSAUKEE, MONTCALM, MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOOMMON, SAGINAW, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 22.30 16.72

LABORERS - OPEN CUT: GROUP 1- CONSTRUCTION LABORER. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN

WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 29.98 22.75

LABORERS - OPEN CUT: GROUP 2- MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER.MORTAR AND MATERIAL MIXER, CONCRETE FORM PERSON, SIGNAL PERSON, WELL POINT PERSON, MANHOLE, HEADWALL AND CATCH BASIN BUILDER, HEADWALL, SEAWALL, BREAKWALL AND DOCK BUILDER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 30.09 19.45

LABORERS - OPEN CUT: GROUP 3- AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS, ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON. AIR, GASOLINE AND ELECTRIC TOOL OPERATOR, VIBRATOR OPERATOR, DRILLER, PUMP PERSON, TAR KETTLE OPERATOR, BRACER, RODDER, REINFORCED STEEL OR MESH PERSON (E.G., WIRE MESH, STEEL MATS, DOWEL BARS,

ETC.), WELDER, PIPE JACKING AND BORING PERSON, WAGON DRILL AND AIR TRACK OPERATOR AND CONCRETE SAW OPERATOR (UNDER 40 H.P.), WINDLASS AND TUGGER PERSON AND DIRECTIONAL BORING PERSON SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 26.09 19.45

LABORERS - OPEN CUT: GROUP 4- TRENCH OR EXCAVATING GRADE PERSON. CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 22.56 16.72

LABORERS - OPEN CUT: GROUP 5- PIE LAYER (INCLUDING

CROCK, METAL PIPE, MULTI-PLATE OR OTHER CONDUITS).
CONSTRUCTION LABORER SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 22.34 16.72
LABORERS - OPEN CUT: GROUP 6- GROUTING MAN, AUDIO-VIDUAL TELEVISION OPERATIONS AND ALL OTHER OPERATIONS IN CONNECTION WITH CLOSED CIRCUIT TELEVITION INSPECTION, PIPE CLEANING AND PIPE RELINING WORK AND THE INSTALLATION AND REPAIR OF WATER SERVICE PIPE AND APPURTENANCES. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND

SCHOOLCRAFT COUNTIES).....$ 19.99 16.72
LABORERS - OPEN CUT: GROUP 7- RESTORATION LABORER, SEEDING, SODDING, PLANTING, CUTTING, MULCHING AND TOP SOIL GRADING; AND THE RESTORATION OF PROPERTY SUCH AS REPLACING MAILBOXES, WOOD CHIPS, PLANTER BOXES, FLAGSTONES, ETC. SCOPE OF WORK: OPEN CUT CONSTRUCTION WORK SHALL BE CONSTRUED TO MEAN WORK WHICH REQUIRES THE EXCAVATION OF EARTH INCLUDING INDUSTRIAL, COMMERCIAL AND RESIDENTIAL BUILDING SITE EXCAVATION AND PREPARATION, LAND BALANCING, DEMOLITION AND REMOVAL OF CONCRETE AND UNDERGROUND APPURTENANCES, GRADING, PAVING, SEWERS, UTILITIES AND IMPROVEMENTS; RETENTION, OXIDATION, FLOCCULATION AND IRRIGATION FACILITIES, AND ALSO INCLUDING BUT NOT LIMITED TO UNDERGROUND PIPING, CONDUITS, STEEL SHEETING FOR UNDERGROUND CONSTRUCTION, AND ALL WORK INCIDENTAL THERETO, AND GENERAL EXCAVATION. FOR ALL AREAS EXCEPT THE UPPER PENINSULA, OPEN CUT CONSTRUCTION WORK SHALL ALSO BE CONSTRUED TO MEAN WATERFRONT WORK, PIERS, DOCKS, SEAWALLS, BREAKWALLS, MARINAS AND ALL INCIDENTAL WORK. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS, OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION WORK AND EXCAVATION FOR THE BUILDING ITSELF AND BACK FILLING INSIDE OF AND WITHIN 5 FT. OF THE BUILDING AND FOUNDATIONS, FOOTINGS AND PIERS FOR THE BUILDING. OPEN CUT CONSTRUCTION WORK SHALL NOT INCLUDE ANY WORK COVERED UNDER TUNNEL, SHAFT AND CAISSON WORK. (ZONE 5 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES).....$ 22.45 16.72

LABO0465-001 06/01/2025

	Rates	Fringes
LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 6- LINE-FORM SETTER FOR CURB OR PAVEMENT; ASPHALT SCREED CHECKER/SCREW MAN ON ASPHALT PAVING MACHINES. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES)....	$ 34.51	13.45
LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 5- PIPE LAYERS, OXY-GUN. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES).....	$ 34.08	13.45
LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 4- ASPHALT RAKER. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES).....	$ 34.46	13.45
LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 3- TUNNEL MINER (HIGHWAY WORK ONLY); FINISHERS TENDERS; GUARD RAIL BUILDERS; HIGHWAY AND MEDIAN BARRIER INSTALLER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S (INCLUDING SOUND, RETAINING AND CRASH BARRIERS); FENCE ERECTOR; BOTTOM PERSON; POWEDER PERSON; WAGON DRILL		

AND AIR TRACK OPERATOR; DIAMOND AND CORE DRILLS; GRADE CHECKER; CERTIFIED WELDERS; CURB AND SIDE RAIL SETTER'S TENDER. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES)....$ 34.02 13.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 2- MIXER OPERATOR (LESS THAN 5 SACKS); AIR OR ELECTRIC TOOL OPERATOR (JACKHAMMER, ETC.); SPREADER; BOXPERSON (ASPHALT, STONE, GRAVEL); CONCRETE PADDLER; POWER CHAIN SAW OPERATOR; PAVING BATCH TRUCK DUMPER; TUNNEL MUCKER (HIGHWAY WORK ONLY); CONCRETE SAW (UNDER 40 H.P.) AND DRY PACK MACHINE; ROTO-MILL GROUNDS PERSON. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES).....$ 33.73 13.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 4: GROUP 1- ASPHALT SHOVELER OR LOADER; ASPHALT PLANT MISC.; BURLAP PERSON; YARD PERSON; DUMPER (WAGON, TRUCK, ETC.); JOINT FILLING LABORER; MISCELLANEOUS LABORER; UNSKILLED LABORER; PAVEMENT REINFORCEING; HANDLING AND PLACING (E.G. WIRE MESH, STEEL MATS, DOWEL BARS); MASON'S TENDER OR BRICKLAYER'S TENDER ON MANHOLES; MANHOLE BUILDER; HEADWALLS, ETC.; WATERPROOFING (OTHER THAN BUILDLINGS), SEAL COATING AND SLURRY MIX, SHORING, UNDERPINNING; PRESSURE GROUTING; BRIDGE PIN AND HANGER REMOVAL; MATERIAL RECYCLING LABORER; HORIZONTAL PAVER LABORER (BRICK, CONCRETE, CLAY, STONE, AND ASPHALT); GROUND STABILIZATION AND MODIFICATION LABORER; GROUTING; WATERBLASTING; TOP PERSON; RAILROAD TRACK AND TRESTLE LABORER; CARPENTERS' TENDER; GUARD RAIL BUILDERS' TENDER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S TENDER; ASPHALT RAKER TENDER; SIGN INSTALLER; REMOTE CONTROL OPERATED EQUIPMENT. (AREA 4: ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON, AND SCHOOL CRAFT COUNTIES).....$ 33.52 13.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 6- LINE-FORM SETTER FOR CURB OR PAVEMENT; ASPHALT SCREED CHECKER/SCREW MAN ON ASPHALT PAVING MACHINES. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 33.61 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 5- PIPE LAYERS, OXY-GUN. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 33.18 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 4- ASPHALT RAKER. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX,

CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 33.56 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 3- TUNNEL MINER (HIGHWAY WORK ONLY); FINISHERS TENDERS; GUARD RAIL BUILDERS; HIGHWAY AND MEDIAN BARRIER INSTALLER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S (INCLUDING SOUND, RETAINING AND CRASH BARRIERS); FENCE ERECTOR; BOTTOM PERSON; POWEDER PERSON; WAGON DRILL AND AIR TRACK OPERATOR; DIAMOND AND CORE DRILLS; GRADE CHECKER; CERTIFIED WELDERS; CURB AND SIDE RAIL SETTER'S TENDER. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 33.12 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 2- MIXER OPERATOR (LESS THAN 5 SACKS); AIR OR ELECTRIC TOOL OPERATOR (JACKHAMMER, ETC.); SPREADER; BOXPERSON (ASPHALT, STONE, GRAVEL); CONCRETE PADDLER; POWER CHAIN SAW OPERATOR; PAVING BATCH TRUCK DUMPER; TUNNEL MUCKER (HIGHWAY WORK ONLY); CONCRETE SAW (UNDER 40 H.P.) AND DRY PACK MACHINE; ROTO-MILL GROUNDS PERSON. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 33.83 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 3: GROUP 1- ASPHALT SHOVELER OR LOADER; ASPHALT PLANT MISC.; BURLAP PERSON; YARD PERSON; DUMPER (WAGON, TRUCK, ETC.); JOINT FILLING LABORER; MISCELLANEOUS LABORER; UNSKILLED LABORER; PAVEMENT REINFORCEING; HANDLING AND PLACING (E.G. WIRE MESH, STEEL MATS, DOWEL BARS); MASON'S TENDER OR BRICKLAYER'S TENDER ON MANHOLES; MANHOLE BUILDER; HEADWALLS, ETC.; WATERPROOFING (OTHER THAN BUILDLINGS), SEAL COATING AND SLURRY MIX, SHORING, UNDERPINNING; PRESSURE GROUTING; BRIDGE PIN AND HANGER REMOVAL; MATERIAL RECYCLING LABORER; HORIZONTAL PAVER LABORER (BRICK, CONCRETE, CLAY, STONE, AND ASPHALT); GROUND STABILIZATION AND MODIFICATION LABORER; GROUTING; WATERBLASTING; TOP PERSON; RAILROAD TRACK AND TRESTLE LABORER; CARPENTERS' TENDER; GUARD RAIL BUILDERS' TENDER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S TENDER; ASPHALT RAKER TENDER; SIGN INSTALLER; REMOTE CONTROL OPERATED EQUIPMENT. (AREA 3: ALCONA, ALPENA, ANTRIM, ARENAC, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, IONIA, IOSCO, ISABELLA, KALKASKA, KENT, LAKE, LEELANAU, MANISTEE, MASON, MECOSTA, MISSAUKEE, MONTCALM, MONTMORENCY, NEWAYGO, OCEANA, OGEMAW, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PREQUE ISLE, ROSCOMMON, AND WEXFORD COUNTIES).....$ 32.62 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 6- LINE-FORM SETTER FOR CURB OR PAVEMENT; ASPHALT SCREED CHECKER/SCREW MAN ON ASPHALT PAVING MACHINES. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 34.37 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 5- PIPE LAYERS, OXY-GUN. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 34.03 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 4- ASPHALT RAKER. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 34.16 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 3- TUNNEL MINER (HIGHWAY WORK ONLY); FINISHERS TENDERS; GUARD RAIL BUILDERS; HIGHWAY AND MEDIAN BARRIER INSTALLER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S (INCLUDING SOUND, RETAINING AND CRASH BARRIERS); FENCE ERECTOR; BOTTOM PERSON; POWEDER PERSON; WAGON DRILL AND AIR TRACK OPERATOR; DIAMOND AND CORE DRILLS; GRADE CHECKER; CERTIFIED WELDERS; CURB AND SIDE RAIL SETTER'S TENDER. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 33.81 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 2- MIXER OPERATOR (LESS THAN 5 SACKS); AIR OR ELECTRIC TOOL OPERATOR (JACKHAMMER, ETC.); SPREADER; BOXPERSON (ASPHALT, STONE, GRAVEL); CONCRETE PADDLER; POWER CHAIN SAW OPERATOR; PAVING BATCH TRUCK DUMPER; TUNNEL MUCKER (HIGHWAY WORK ONLY); CONCRETE SAW (UNDER 40 H.P.) AND DRY PACK MACHINE; ROTO-MILL GROUNDS PERSON. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 30.03 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 2: GROUP 1- ASPHALT SHOVELER OR LOADER; ASPHALT PLANT MISC.; BURLAP PERSON; YARD PERSON; DUMPER (WAGON, TRUCK, ETC.); JOINT FILLING LABORER; MISCELLANEOUS LABORER; UNSKILLED LABORER; PAVEMENT REINFORCEING; HANDLING AND PLACING (E.G. WIRE MESH, STEEL MATS, DOWEL BARS); MASON'S TENDER OR BRICKLAYER'S TENDER ON MANHOLES; MANHOLE BUILDER; HEADWALLS, ETC.; WATERPROOFING (OTHER THAN BUILDLINGS), SEAL COATING AND SLURRY MIX, SHORING, UNDERPINNING; PRESSURE GROUTING; BRIDGE PIN AND

HANGER REMOVAL; MATERIAL RECYCLING LABORER; HORIZONTAL PAVER LABORER (BRICK, CONCRETE, CLAY, STONE, AND ASPHALT); GROUND STABILIZATION AND MODIFICATION LABORER; GROUTING; WATERBLASTING; TOP PERSON; RAILROAD TRACK AND TRESTLE LABORER; CARPENTERS' TENDER; GUARD RAIL BUILDERS' TENDER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S TENDER; ASPHALT RAKER TENDER; SIGN INSTALLER; REMOTE CONTROL OPERATED EQUIPMENT. (AREA 2: ALLEGAN, BARRY, BAY, BERRIEN, BRANCH, CALHOUN, CASS, CLINTON, EATON, GRATIOT, HILLSDALE, HURON, INGHAM, JACKSON, KALAMAZOO, LAPEER, LENAWEE, LIVINGSTON, MIDLAND, MUSKEGON, SAGINAW, SANILACK, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, AND VAN BUREN COUNTIES).....$ 33.37 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 6- LINE-FORM SETTER FOR CURB OR PAVEMENT; ASPHALT SCREED CHECKER/SCREW MAN ON ASPHALT PAVING MACHINES. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 36.41 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 5- PIPE LAYERS, OXY-GUN. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 36.11 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 4- ASPHALT RAKER. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 35.90 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 3- TUNNEL MINER (HIGHWAY WORK ONLY); FINISHERS TENDERS; GUARD RAIL BUILDERS; HIGHWAY AND MEDIAN BARRIER INSTALLER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S (INCLUDING SOUND, RETAINING AND CRASH BARRIERS); FENCE ERECTOR; BOTTOM PERSON; POWEDER PERSON; WAGON DRILL AND AIR TRACK OPERATOR; DIAMOND AND CORE DRILLS; GRADE CHECKER; CERTIFIED WELDERS; CURB AND SIDE RAIL SETTER'S TENDER. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 35.82 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 2- MIXER OPERATOR (LESS THAN 5 SACKS); AIR OR ELECTRIC TOOL OPERATOR (JACKHAMMER, ETC.); SPREADER; BOXPERSON (ASPHALT, STONE, GRAVEL); CONCRETE PADDLER; POWER CHAIN SAW OPERATOR; PAVING BATCH TRUCK DUMPER; TUNNEL MUCKER (HIGHWAY WORK ONLY); CONCRETE SAW (UNDER 40 H.P.) AND DRY PACK MACHINE; ROTO-MILL GROUNDS PERSON. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 31.96 14.45

LABORER- HIGHWAY, BRIDGE, AND AIRPORT CONSTRUCTION AREA 1: GROUP 1- ASPHALT SHOVELER OR LOADER; ASPHALT PLANT MISC.; BURLAP PERSON; YARD PERSON; DUMPER (WAGON, TRUCK, ETC.); JOINT FILLING LABORER; MISCELLANEOUS LABORER; UNSKILLED LABORER; PAVEMENT REINFORCEING; HANDLING AND PLACING (E.G. WIRE MESH, STEEL MATS, DOWEL BARS); MASON'S TENDER OR BRICKLAYER'S TENDER ON MANHOLES; MANHOLE BUILDER; HEADWALLS, ETC.; WATERPROOFING (OTHER THAN BUILDLINGS), SEAL COATING AND SLURRY MIX, SHORING, UNDERPINNING; PRESSURE GROUTING; BRIDGE PIN AND HANGER REMOVAL; MATERIAL RECYCLING LABORER; HORIZONTAL PAVER LABORER (BRICK, CONCRETE, CLAY, STONE, AND ASPHALT); GROUND STABILIZATION AND MODIFICATION LABORER; GROUTING; WATERBLASTING; TOP PERSON; RAILROAD TRACK AND TRESTLE LABORER;

CARPENTERS' TENDER; GUARD RAIL BUILDERS' TENDER; EARTH RETENTION BARRIER AND WALL AND M.S.E. WALL INSTALLER'S TENDER; ASPHALT RAKER TENDER; SIGN INSTALLER; REMOTE CONTROL OPERATED EQUIPMENT. (AREA 1: GENESE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES).....$ 35.51 14.45

LABO1076-005 04/01/2025

	Rates	Fringes
LABORER: DISTRIBUTION WORK - THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF DISTRIBUTION PIPELINES TRANSPORTING COAL, OIL, GAS OR OTHER SIMILAR MATERIALS, VAPORS OR LIQUIDS, INCLUDING PIPELINES WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING THE METER SETTINGS ON RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, PRIVATE AND PUBLIC STRUCTURES. ALL WORK COVERING PUMPING STATIONS AND TANK FARMS NOT COVERED BY THE BUILDING TRADES AGREEMENT. OTHER DISTRIBUTION LINES WITH THE EXCEPTION OF SEWER, WATER AND CABLE TELEVISION ARE INCLUDED. UNDERGROUND DUCT LAYER PAY: $.40 PER HOUR ABOVE THE BASE PAY RATE. (ZONE 5 - REMAINING COUNTIES IN MICHIGAN)	$ 22.95	13.45
LABORER: DISTRIBUTION WORK - THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF DISTRIBUTION PIPELINES TRANSPORTING COAL, OIL, GAS OR OTHER SIMILAR MATERIALS, VAPORS OR LIQUIDS, INCLUDING PIPELINES WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING THE METER SETTINGS ON RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, PRIVATE AND PUBLIC STRUCTURES. ALL WORK COVERING PUMPING STATIONS AND TANK FARMS NOT COVERED BY THE BUILDING TRADES AGREEMENT. OTHER DISTRIBUTION LINES WITH THE EXCEPTION OF SEWER, WATER AND CABLE TELEVISION ARE INCLUDED. UNDERGROUND DUCT LAYER PAY: $.40 PER HOUR ABOVE THE BASE PAY RATE. (ZONE 4 - ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT)	$ 22.92	13.45
LABORER: DISTRIBUTION WORK - THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF DISTRIBUTION PIPELINES TRANSPORTING COAL, OIL, GAS OR OTHER SIMILAR MATERIALS, VAPORS OR LIQUIDS, INCLUDING PIPELINES WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING THE METER SETTINGS ON RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, PRIVATE AND PUBLIC STRUCTURES. ALL WORK COVERING PUMPING STATIONS AND TANK FARMS NOT COVERED BY THE BUILDING TRADES AGREEMENT. OTHER DISTRIBUTION LINES WITH THE EXCEPTION OF SEWER, WATER AND CABLE TELEVISION ARE INCLUDED. UNDERGROUND DUCT LAYER PAY: $.40 PER HOUR ABOVE THE BASE PAY RATE. (ZONE 3 - BAY, GENESEE, LAPEER, MIDLAND, SAGINAW, SANILAC, SHIAWASSEE AND ST. CLAIR)	$ 23.55	13.45
LABORER: DISTRIBUTION WORK - THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF DISTRIBUTION PIPELINES TRANSPORTING COAL, OIL, GAS OR OTHER SIMILAR MATERIALS, VAPORS OR LIQUIDS, INCLUDING PIPELINES WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING THE METER SETTINGS ON RESIDENTIAL, COMMERCIAL, INDUSTRIAL,		

INSTITUTIONAL, PRIVATE AND PUBLIC STRUCTURES. ALL WORK COVERING PUMPING STATIONS AND TANK FARMS NOT COVERED BY THE BUILDING TRADES AGREEMENT. OTHER DISTRIBUTION LINES WITH THE EXCEPTION OF SEWER, WATER AND CABLE TELEVISION ARE INCLUDED. UNDERGROUND DUCT LAYER PAY: $.40 PER HOUR ABOVE THE BASE PAY RATE. (ZONE 2 - MONROE AND WASHTENAW)......$ 24.55 13.45

LABORER: DISTRIBUTION WORK - THE CONSTRUCTION, INSTALLATION, TREATING AND RECONDITIONING OF DISTRIBUTION PIPELINES TRANSPORTING COAL, OIL, GAS OR OTHER SIMILAR MATERIALS, VAPORS OR LIQUIDS, INCLUDING PIPELINES WITHIN PRIVATE PROPERTY BOUNDARIES, UP TO AND INCLUDING THE METER SETTINGS ON RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL, PRIVATE AND PUBLIC STRUCTURES. ALL WORK COVERING PUMPING STATIONS AND TANK FARMS NOT COVERED BY THE BUILDING TRADES AGREEMENT. OTHER DISTRIBUTION LINES WITH THE EXCEPTION OF SEWER, WATER AND CABLE TELEVISION ARE INCLUDED. UNDERGROUND DUCT LAYER PAY: $.40 PER HOUR ABOVE THE BASE PAY RATE. (ZONE 1 - MACOMB, OAKLAND AND WAYNE).....$ 28.41 13.45

PAIN0022-002 07/01/2008

	Rates	Fringes
PAINTER (HILLSDALE, JACKSON AND LENAWEE COUNTIES; LIVINGSTON COUNTY (EAST OF THE EASTERN CITY LIMITS OF HOWELL, NOT INCLUDING THE CITY OF HOWELL, NORTH TO THE GENESEE COUNTY LINE AND SOUTH TO THE WASHTENAW COUNTY LINE); MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES). FOOTNOTES: FOR ALL SPRAY WORK AND JOURNEYMAN RIGGING FOR SPRAY WORK, ALSO BLOWING OFF, $0.80 PER HOUR ADDITIONAL (APPLIES ONLY TO WORKERS DOING RIGGING FOR SPRAY WORK ON OFF THE FLOOR WORK. DOES NOT INCLUDE SETTING UP OR MOVING RIGGING ON FLOOR SURFACES, NOR DOES IT APPLY TO WORKERS ENGAGED IN COVERING UP OR TENDING SPRAY EQUIPMENT. FOR ALL SANDBLASTING AND SPRAY WORK PERFORMED ON HIGHWAY BRIDGES, OVERPASSES, TANKS OR STEEL, $0.80 PER HOUR ADDITIONAL. FOR ALL BRUSHING, CLEANING AND OTHER PREPARATORY WORK (OTHER THAN SPRAYING OR STEEPLEJACK WORK) AT SCAFFOLD HEIGHTS OF FIFTY (50) FEET FROM THE GROUND OR HIGHER, $0.50 PER HOUR ADDITIONAL. FOR ALL PREPARATORIAL WORK AND PAINTING PERFORMED ON OPEN STEEL UNDER FORTY (40) FEET WHEN NO SCAFFOLDING IS INVOLVED, $0.50 PER HOUR ADDITIONAL. FOR ALL SWING STAGE WORK-WINDOW JACKS AND WINDOW BELTS-EXTERIOR AND INTERIOR, $0.50 PER HOUR ADDITIONAL. FOR ALL SPRAY WORK AND SANDBLASTER WORK TO A SCAFFOLD HEIGHT OF FORTY (40) FEET ABOVE THE FLOOR LEVEL, $0.80 PER HOUR ADDITIONAL. FOR ALL PREPARATORIAL WORK AND PAINTING ON ALL HIGHWAY BRIDGES OR OVERPASSES UP TO FORTY (40) FEET IN HEIGHT, $0.50 PER HOUR ADDITIONAL. FOR ALL STEEPLEJACK WORK PERFORMED WHERE THE ELEVATION IS FORTY (40) FEET OR MORE, $1.25 PER HOUR ADDITIONAL..	$ 25.06	14.75

PAIN0312-001 06/01/2018

	Rates	Fringes
PAINTER: SPRAY, SANDBLAST, SIGN PAINTING (EXCLUDES: ALLEGAN COUNTY (TOWNSHIPS OF DORR, FILLMORE, HEATH, HOPKINS, LAKETOWN, LEIGHTON, MANLIUS, MONTEREY,		

OVERISEL, SALEM, SAUGATUCK AND WAYLAND); INCLUDES: BARRY, BERRIEN, BRANCH, CALHOUN, CASS, HILLSDALE, KALAMAZOO, ST. JOSEPH, VAN BUREN).....$ 24.94 13.35

PAINTER: BRUSH AND ROLLER (EXCLUDES: ALLEGAN COUNTY (TOWNSHIPS OF DORR, FILLMORE, HEATH, HOPKINS, LAKETOWN, LEIGHTON, MANLIUS, MONTEREY, OVERISEL, SALEM, SAUGATUCK AND WAYLAND); INCLUDES: BARRY, BERRIEN, BRANCH, CALHOUN, CASS, HILLSDALE, KALAMAZOO, ST. JOSEPH, VAN BUREN).....$ 23.74 13.35

PAIN0845-003 05/10/2018

	Rates	Fringes
PAINTER (CLINTON COUNTY; EATON COUNTY (DOES NOT INCLUDE THE TOWNSHIPS OF BELLEVUE AND OLIVET); INGHAM COUNTY; IONIA COUNTY (EAST OF HWY. M 66); LIVINGSTON COUNTY (WEST OF THE EASTERN CITY LIMITS OF HOWELL, INCLUDING THE CITY OF HOWELL, NORTH TO THE GENESEE COUNTY LINE AND SOUTH TO THE WASHTENAW COUNTY LINE); AND SHIAWASSEE COUNTY (TOWNSHIPS OF BENNINGTON, LAINGSBURY AND PERRY))	$ 25.49	13.74

PAIN0845-015 05/10/2018

	Rates	Fringes
PAINTER (MUSKEGON COUNTY; NEWAYGO COUNTY (EXCEPT THE TOWNSHIPS OF BARTON, BIG PRAIRIE, BROOKS, CROTON, ENSLEY, EVERETT, GOODWELL, GRANT, HOME, MONROE, NORWICH AND WILCOX); OCEANA COUNTY; OTTAWA COUNTY (EXCEPT THE TOWNSHIPS OF ALLENDALE, BLENDONE, CHESTER, GEORGETOWN, HOLLAND, JAMESTOWN, OLIVE, PARK, POLKTON, PORT SHELDON, TALLMADGE, WRIGHT AND ZEELAND):)	$ 25.49	13.74

PAIN0845-018 05/10/2018

	Rates	Fringes
PAINTER (ALLEGAN COUNTY (TOWNSHIPS OF DORR, FILLMORE, HEATH, HOPKINS, LAKETOWN, LEIGHTON, MANLIUS, MONTEREY, OVERISEL, SALEM, SAUGATUCK AND WAYLAND); IONIA COUNTY (WEST OF HWY. M-66); KENT, MECOSTA AND MONTCALM COUNTIES; NEWAYGO COUNTY (TOWNSHIPS OF BARTON, BIG PRAIRIE, BROOKS, CROTON, ENSLEY, EVERETT, GOODWELL, GRANT, HOME, MONROE, NORWICH AND WILCOX); OSCEOLA COUNTY (SOUTH OF HWY. #10); OTTAWA COUNTY (TOWNSHIPS OF ALLENDALE, BLENDONE, CHESTER, GEORGETOWN, HOLLAND, JAMESTOWN, OLIVE, PARK, POLK	$ 25.49	13.74

PAIN1011-003 06/02/2022

	Rates	Fringes
PAINTER (ALGER, BARAGA, CHIPPEWA, DELTA, DICKINSON, GOGEBIC, HOUGHTON, IRON, KEWEENAW, LUCE, MACKINAC, MARQUETTE, MENOMINEE, ONTONAGON AND SCHOOLCRAFT COUNTIES) FOOTNOTES: HIGH PAY (BRIDGES, OVERPASSES, WATERTOWER): 30 TO 80 FT.: $.65 PER HOUR ADDITIONAL. 80 FT. AND OVER: $1.30 PER HOUR ADDITIONAL	$ 24.66	14.99

PAIN1474-002 06/01/2010

	Rates	Fringes
PAINTER (HURON COUNTY; LAPEER COUNTY (EAST OF HWY. M-53); ST. CLAIR, SANILAC AND TUSCOLA COUNTIES)		

FOOTNOTES: LEAD ABATEMENT WORK: $1.00 PER HOUR ADDITIONAL. WORK WITH ANY HAZARDOUS MATERIAL: $1.00 PER HOUR ADDITIONAL. SANDBLASTING, STEAM CLEANING AND ACID CLEANING: $1.00 PER HOUR ADDITIONAL. LADDER WORK AT OR ABOVE 40 FT., SCAFFOLD WORK AT OR ABOVE 40 FT., SWING STAGE, BOATSWAIN CHAIR, WINDOW JACKS AND ALL WORK PERFORMED OVER A FALLING HEIGHT OF 40 FT.: $1.00 PER HOUR ADDITIONAL. SPRAY GUN WORK, PICK PULLERS AND THOSE HANDLING NEEDLES, BLOWING OFF BY AIR PRESSURE, AND ANY PERSON RIGGING (SETTING UP AND MOVING OFF THE GROUND): $1.00 PER HOUR ADDITIONAL. STEEPLEJACK, TANKS, GAS HOLDERS, STACKS, FLAG POLES, RADIO TOWERS AND BEACONS, POWER LINE TOWERS, BRIDGES, ETC.: $1.00 PER HOUR ADDITIONAL, PAID FROM THE GROUND UP.....$ 23.79 12.02

PAIN1803-003 06/01/2025

	Rates	Fringes
PAINTER: WORK PERFORMED ON WATER, BRIDGES OVER WATER OR MOVING TRAFFIC, RADIO AND POWERLINE TOWERS, ELEVATED TANKS, STEEPLES, SMOKE STACKS OVER 40 FT. OF FALLING HEIGHTS, RECOVERY OF LEAD-BASED PAINTS AND ANY WORK ASSOCIATED WITH INDUSTRIAL PLANTS, EXCEPT MAINTENANCE OF INDUSTRIAL PLANTS. (ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (NORTH OF HWY. #10); OSCODA, OTSEGO, PREQUE ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES).....	$ 29.23	19.11
PAINTER: ALL OTHER WORK, INCLUDING MAINTENANCE OF INDUSTRIAL PLANT. (ALCONA, ALPENA, ANTRIM, ARENAC, BAY, BENZIE, CHARLEVOIX, CHEBOYGAN, CLARE, CRAWFORD, EMMET, GLADWIN, GRAND TRAVERSE, GRATIOT, IOSCO, ISABELLA, KALKASKA, LAKE, LEELANAU, MANISTEE, MASON, MIDLAND, MISSAUKEE, MONTMORENCY AND OGEMAW COUNTIES; OSCEOLA COUNTY (NORTH OF HWY. #10); OSCODA, OTSEGO, PRESQUE ISLE, ROSCOMMON, SAGINAW AND WEXFORD COUNTIES) FOOTNOTES: SPRAY PAINTING, SANDBLASTING, BLOWDOWN ASSOCIATED WITH SPRAYING AND BLASTING, WATER BLASTING AND WORK INVOLVING A SWING STAGE, BOATSWAIN CHAIR OR SPIDER: $1.00 PER HOUR ADDITIONAL. ALL WORK PERFORMED INSIDE TANKS, VESSELS, TANK TRAILERS, RAILROAD CARS, SEWERS, SMOKE STACKS, BOILERS OR OTHER SPACES HAVING LIMITED EGRESS NOT INCLUDING BUILDINGS, OPENTOP TANKS, PITS, ETC.: $1.25 PER HOUR ADDITIONAL.....	$ 29.35	19.05

PLAS0514-001 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER: ZONE 2 (ALCONA, ALGER, ALLEGAN, ALPENA, ANTRIM, ARENAC, BARAGA, BARRY, BAY, BENZIE, BERRIEN, BRANCH, CALHOUN, CASS, CHARLEVOIX, CHEBOYGAN, CHIPPEWA, CLARE, CLINTON, CRAWFORD, DELTA, DICKINSON, EATON, EMMET, GLADWIN, GOGEBIC, GRAND TRAVERSE, GRATIOT, HILLSDALE, HOUGHTON, HURON, INGHAM, IONIA, IOSCO, IRON, ISABELLA, JACKSON, KALAMAZOO, KALKASKA, KENT, KEWEENAW, LAKE, LAPEER, LEELANAU, LENAWEE, LUCE, MACKINAC, MANISTEE, MARQUETTE, MASON, MECOSTA, MENOMINEE, MIDLAND, MISSAUKEE, MONTCALM,		

MONTMORENCY, MUSKEGON, NEWAYGO, OCEANA, OGEMAW, ONTONAGON, OSCEOLA, OSCODA, OTSEGO, OTTAWA, PRESQUE ISLE, ROSCOMMON, SANILAC, SCHOOLCRAFT, SHIAWASSEE, ST. CLAIR, ST. JOSEPH, TUSCOLA, VAN BUREN, AND WEXFORD COUNTIES).....$ 31.50 18.51

CEMENT MASON/CONCRETE FINISHER: ZONE 1 (GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, SAGINAW, WASHTENAW AND WAYNE COUNTIES).....$ 33.00 18.51

PLUM0190-003 05/01/2015

	Rates	Fringes
PLUMBER/PIPEFITTER - GAS DISTRIBUTION PIPELINE: WELDING IN CONJUNCTION WITH GAS DISTRIBUTION PIPELINE WORK	$ 33.03	20.19
PLUMBER/PIPEFITTER - GAS DISTRIBUTION PIPELINE: ALL OTHER WORK	$ 24.19	12.28

SUMI2002-001 08/13/1986

	Rates	Fringes
PAVEMENT MARKING MACHINE: GROUP 2 Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector. ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 30.03	14.45
PAVEMENT MARKING MACHINE: GROUP 2 Performs all functions involved for the placement or removal of temporary or permanent pavement markings or markers not covered by the classification of Pavement Marker Group 1 or Line Protector. ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE	$ 31.96	14.45
PAVEMENT MARKING MACHINE: GROUP 1 Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers. ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES)	$ 33.37	14.45
PAVEMENT MARKING MACHINE: GROUP 1 Drives or operates a truck mounted striper, grinder, blaster, groover, or thermoplastic melter for the placement or removal of temporary or permanent pavement markings or markers. ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE COUNTIES	$ 35.51	14.45
LINE PROTECTOR: Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is compreised of only Pavement Markers Group 1 and Line Protectors. (ZONE 2: STATEWIDE (EXCLUDING GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 25.03	14.45
LINE PROTECTOR Performs all operations for the protection or removal of temporary or permanent pavement markings or markers in a moving convoy operation not performed by the classification of Pavement Marker Group 1. A moving convoy operation is compreised of only Pavement Markers Group 1 and Line Protectors. (ZONE 1: GENESEE, MACOMB, MONROE, OAKLAND, WASHTENAW AND WAYNE)	$ 26.63	14.45

FLAG PERSON	$ 10.10	0.00

TEAM0007-004 06/01/2025

	Rates	Fringes
TRUCK DRIVER TRUCKS, 8 CU. YDS. AND OVER (AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW, AND WAYNE COUNTIES). FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.50	0.75
TRUCK DRIVER TRUCKS, 8 CU. YDS. AND OVER (AREA 1: REMAINING COUNTIES) FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.40	0.75
TRUCK DRIVER TRUCKS UNDER 8 CU. YDS. (AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW, AND WAYNE COUNTIES) FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.50	0.75
TRUCK DRIVER TRUCKS UNDER 8 CU. YDS. (AREA 1: REMAINING COUNTIES) FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.40	0.75
TRUCK DRIVER EUCLIDS, DOUBLE BOTTOMS AND LOWBOYS (AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW, AND WAYNE COUNTIES) FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.65	0.75
TRUCK DRIVER EUCLIDS, DOUBLE BOTTOMS AND LOWBOYS (AREA 1: REMAINING COUNTIES) FOOTNOTE: +A +B TO FRINGE BENEFITS. A. $470.70 PER WEEK B. $68.70 DAILY	$ 33.55	0.75

TEAM0247-004 04/01/2013

	Rates	Fringes
SIGN INSTALLER GROUP 2: PERFORMS ALL MISCELLANEOUS LABOR, USES ALL HAND AND POWER TOOLS, AND OPERATORES ALL OTHER EQUIPMENT, MOBILE OR OTHERWISE, REQUIRED FOR THE INSTALLATION OF HIGHWAY AND STREET SIGNS. (AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW, AND WAYNE COUNTIES) FOOTENOTE: A. $132.70 PER WEEK, PLUS $17.80 PER DAY	$ 25.05	11.84
SIGN INSTALLER GROUP 2: PERFORMS ALL MISCELLANEOUS LABOR, USES ALL HAND AND POWER TOOLS, AND OPERATORES ALL OTHER EQUIPMENT, MOBILE OR OTHERWISE, REQUIRED FOR THE INSTALLATION OF HIGHWAY AND STREET SIGNS. (AREA 1: REMAINING COUNTIES) FOOTENOTE: A. $132.70 PER WEEK, PLUS $17.80 PER DAY	$ 25.27	11.84
SIGN INSTALLER GROUP 1: PERFORMS ALL NECESSARY LABOR AND USES ALL TOOLS REQUIRED TO CONSTRUCT AND SET CONCRETE FORMS REQUIRED IN THE INSTALLATION OF HIGHWAY AND STREET SIGNS. (AREA 2: GENESEE, LIVINGSTON, MACOMB, MONROE, OAKLAND, WASHTENAW, AND WAYNE COUNTIES) FOOTENOTE: A. $132.70 PER WEEK, PLUS $17.80 PER DAY	$ 22.03	11.83
SIGN INSTALLER GROUP 1: PERFORMS ALL NECESSARY LABOR AND USES ALL TOOLS REQUIRED TO CONSTRUCT AND SET CONCRETE FORMS REQUIRED IN THE INSTALLATION OF HIGHWAY AND STREET SIGNS. (AREA 1: REMAINING COUNTIES) FOOTENOTE: A. $132.70 PER WEEK, PLUS $17.80 PER DAY	$ 21.78	11.83

TEAM0247-010 04/01/2018

	Rates	Fringes
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 3- TRUCK DRIVER ON LOW BOY, EUCLID AND DOUBLE BOTTOM. SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND BALANCING, GRADING, SEWERS, UTILITIES AND IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION, FLOCCULATION FACILITIES, CONDUITS, GENERAL EXCAVATION AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS DAY. (AREA 2 GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW, AND WAYNE COUNTIES)	$ 24.45	19.04
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 3- TRUCK DRIVER ON LOW BOY, EUCLID AND DOUBLE BOTTOM. SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND BALANCING, GRADING, SEWERS, UTILITIES AND IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION, FLOCCULATION FACILITIES, CONDUITS, GENERAL EXCAVATION AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS DAY. (AREA 1: LAPEER AND SHIAWASSEE COUNTIES)	$ 24.12	19.04
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 2- TRUCK DRIVER ON DUMP TRUCKS OF 8 CUBIC YARDS CAPACITY OR OVER, POLE TRAILERS, SEMIS AND FUEL TRUCKS. SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND BALANCING, GRADING, SEWERS, UTILITIES AND IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION, FLOCCULATION FACILITIES, CONDUITS, GENERAL EXCAVATION AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS DAY. (AREA 2 GENESEE, MACOMB, MONROE, OAKLAND, ST. CLAIR, WASHTENAW, AND WAYNE COUNTIES)	$ 24.26	19.04
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 2- TRUCK DRIVER ON DUMP TRUCKS OF 8 CUBIC YARDS CAPACITY OR OVER, POLE TRAILERS, SEMIS AND FUEL TRUCKS. SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND BALANCING, GRADING, SEWERS, UTILITIES AND IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION, FLOCCULATION FACILITIES, CONDUITS, GENERAL EXCAVATION AND STEEL SHEETING FOR UNDERGROUND CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL NOT INCLUDE ANY STRUCTURAL MODIFICATIONS, ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE		

CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION.
PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH
OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS
DAY. (AREA 1: LAPEER AND SHIAWASSEE COUNTIES)......$ 23.91 19.04
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 1-
TRUCK DRIVER ON ALL TRUCKS (EXCEPT DUMP TRUCKS OF 8
CUBIC YARDS CAPACITY OR OVER, POLE TRAILERS, SEMIS,
LOW BOYS, EUCLID, DOUBLE BOTTOM AND FUEL TRUCKS).
SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND
BALANCING, GRADING, SEWERS, UTILITIES AND
IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO
TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION,
FLOCCULATION FACILITIES, CONDUITS, GENERAL
EXCAVATION AND STEEL SHEETING FOR UNDERGROUND
CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL
NOT INCLUDE ANY STRUCTURAL MODIFICATIONS,
ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR
HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE
CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION.
PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH
OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS
DAY. (AREA 2 GENESEE, MACOMB, MONROE, OAKLAND, ST.
CLAIR, WASHTENAW, AND WAYNE COUNTIES).....$ 24.12 19.04
TRUCK DRIVER, UNDERGROUND CONSTRUCTION: GROUP 1-
TRUCK DRIVER ON ALL TRUCKS (EXCEPT DUMP TRUCKS OF 8
CUBIC YARDS CAPACITY OR OVER, POLE TRAILERS, SEMIS,
LOW BOYS, EUCLID, DOUBLE BOTTOM AND FUEL TRUCKS).
SCOPE OF WORK: EXCAATION, SITE PREPARATION, LAND
BALANCING, GRADING, SEWERS, UTILITIES AND
IMPROVEMENTS; ALSO INCLUDING BUT NOT LIMITED TO
TUNNELS, UNDERGROUND PIPING, RETENTION, OXIDATION,
FLOCCULATION FACILITIES, CONDUITS, GENERAL
EXCAVATION AND STEEL SHEETING FOR UNDERGROUND
CONSTRUCTION. UNDERGROUND CONSTRUCTION WORK SHALL
NOT INCLUDE ANY STRUCTURAL MODIFICATIONS,
ALTERATIONS, ADDITIONS AND REPAIRS TO BUILDINGS OR
HIGHWAY WORK, INCLUDING ROADS, STREETS, BRIDGE
CONSTRUCTION AND PARKING LOTS OR STEEL ERECTION.
PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, FOURTH
OF JULY, LABOR DAY, TANKSGIVING DAY, AND CHRISTMAS
DAY. (AREA 1: LAPEER AND SHIAWASSEE COUNTIES)......$ 23.82 19.04

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
https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at 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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ⁄SU⁄ identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

⁄SU⁄ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ⁄SA⁄ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ⁄SA⁄ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.

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            Washington, DC 20210
  2) If an initial decision has been issued, then any interested
  party (those affected by the action) that disagrees with the
  decision can request review and reconsideration from the Wage
  and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).
  Requests for review and reconsideration can be submitted via
  email to dba.reconsideration@dol.gov or by mail 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 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.
  ================================================================
           END OF GENERAL DECISION
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