

MICHIGAN STATE
U N I V E R S I T Y

ELECTRONIC BIDDING

INVITATION ONLY
SPECIFICATION FOR

BRIDGES - REPAIR AND RESTORE PEDESTRIAN BRIDGES (FY24)

PROJECT NUMBER

CP23034

Wednesday, May 22, 2024

AT

MICHIGAN STATE UNIVERSITY
EAST LANSING, MICHIGAN

Infrastructure Planning and Facilities
Planning, Design and Construction

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MDOT SPECIAL PROVISION

SCHEDULE OF DRAWINGS

Project Title: **BRIDGES - REPAIR AND RESTORE PEDESTRIAN BRIDGES (FY24)**
Capital Project Number: **CP23034**
No. of Sheets: **9**

ADVERTISEMENT FOR BIDS

DATE: **June 12, 2024**

PROJECT TITLE: **BRIDGES - REPAIR AND RESTORE PEDESTRIAN BRIDGES
(FY24)**

PROJECT NUMBER: **CP23034**

for

MICHIGAN STATE UNIVERSITY

located at

EAST LANSING, MICHIGAN

OWNER: BOARD OF TRUSTEES
MICHIGAN STATE UNIVERSITY

ENGINEER/ARCHITECT: PLANNING, DESIGN AND CONSTRUCTION
Infrastructure Planning and Facilities
Michigan State University

DESIGN REPRESENTATIVE: **Scott Gardner** PHONE: **517-432-0782**

PROJECT MANAGER: **Andy Linebaugh** PHONE: **517-243-0029**

Fishbeck
1515 Arboretum Dr. S.E.
Grand Rapids, MI 49546

BID DUE DATE: Until **3:00 p.m. on Thursday, July 11, 2024**, the Owner will receive bids for the work as set forth in the Bidding Documents at via the Owner's Oracle Primavera Unifier Bid Manager, at which time and place all proposals will be publicly opened. Bidders are responsible for properly registering for this process, and familiarizing themselves with the system and its requirements. Registration information can be found at <https://ipf.msu.edu/construction/partners/prospective-partners>.

Proposals are invited for the following work:
Proposal 1 – General Construction Work

AB-2
ADVERTISEMENT
FOR BIDS

This project involves repair and restore the Kellogg Center pedestrian bridge. Construction can't commence until MSU receives the Joint Permit from EGLE, which is currently being reviewed. A Mussel Survey has been completed and submitted to MDNR. Only one abutment can be worked on at a time due to MDEQ requirements to limit the amount of stream width we occupy. No work can occur on home football Fridays or Saturdays. Owner will obtain any/all permits including SESC permit.

Invitation Only: Bids will only be accepted by the following MDOT pre-qualified bridge contractors:

1. Miller LS Bridge Construction
2. Davis Construction
3. Z Contractors
4. C.A. Hull
5. Anlaan Corp.

The substantial construction completion date for the project, as set forth in the project manual and drawings is **November 8, 2024**. See applicable start date and interim completion dates in the General Requirements (Division One) – Part 1 Work Sequence section.

LIQUIDATED DAMAGES:

Shall, or Shall not be assessed for Substantial Completion at:
\$_____PER DAY

Shall, or Shall not be assessed for Final Completion at:
\$_____PER DAY

EXCLUSIONS FROM MUTUAL WAIVERS OF CONSEQUENTIAL DAMAGES:

DEFAULT IS NONE. (If exclusions apply, project team to insert applicable exclusions below).

The complete set of documents is also available for viewing through our new [MSU Plan Room](#) or via the MSU Planning, Design and Construction (PDC) web page at <https://ipf.msu.edu/construction/partners/prospective-partners> and then select “dedicated plan room”.

PLAN ROOMS

The Bidding documents are on file and may be examined at the following locations during regular business hours, Monday through Friday:

Builders Exchange of Lansing &
Central Michigan
1240 East Saginaw
Lansing, MI 48906

Dodge Data & Analytics
25330 Telegraph Road, Suite 350
Southfield, MI 48009

Dodge Data & Analytics
914 E. Vine Street
Kalamazoo, MI 49001

Dodge Data & Analytics
1311 South Linden Road, Suite B
Flint, MI 48532

Builders Exchange
P.O. Box 2031
Grand Rapids, MI 49501

Tri-City Builders & Traders Exchange
334 South Water
Saginaw, MI 48607

Construction Association of Michigan
43636 Woodward Avenue
P. O. Box 3204
Bloomfield Hills, MI 48302-3204

Builders Exchange
3431 East Kilgore
Kalamazoo, MI 49001

CNS Construction News Service
of West Michigan, Inc.
1793 R. W. Berends Dr. SW.
Wyoming, MI 49509-4993

MMSDC Michigan Minority Supplier
Development Council.
100 River Place STE 300
Detroit, MI 48207

Builders Exchange of NW MI, Inc.
1373 Barlow St. , Suite 4
Traverse City, MI 49686

Capital Imaging
2521 East Michigan Avenue
Lansing, MI 48912

AB-4
ADVERTISEMENT
FOR BIDS

A pre-bid site inspection will be held on **Wednesday, June 26, 2024 at 2:00 p.m.** All interested Contractors or Bidders are encouraged to attend. Interested parties should meet at the **Infrastructure Planning and Facilities, 1147 Chestnut Rd., Rm. 11-12, East Lansing, MI 48824**. All Contractors submitting bids for the work will be held to have visited the site prior to submitting bids.

Each proposal shall be accompanied by a bid security as set forth in the Instructions to Bidders.

The Owner reserves the right to reject any or all proposals either in whole or in part and to waive any irregularities.

Withdrawal of any proposal is prohibited for a period of 120 days after the actual date of the opening thereof.

Performance and Labor and Material Bonds are required as set forth in the Instructions to Bidders.

All prospective Bidders, their Subcontractors and suppliers must be awardable by and in compliance with the directives and guidelines of the Contract Compliance Division of the Michigan Civil Rights Commission.

SUBCONTRACTING AND SUPPLIER DIVERSITY

The University makes a continuous effort to broaden its business relationships with Minority Business Enterprise (MBE) contractors, Women Business Enterprise (WBE) contractors, and small business concerns (including veteran-owned small business, service-disabled veteran owned small business, HUB Zone small business, and small disadvantaged business concerns certified by the U.S. Small Business Administration). For the purposes of this provision, suppliers are considered subcontractors. If third parties are needed to fulfill contractual obligations to the University, you are strongly encouraged to consider all qualified sources, including WBE, MBE, and small business subcontractors. For purposes of this paragraph, MBE is defined as a business enterprise of which more than 50% of the voting shares or interest in the business is owned, controlled, and operated by individuals who are members of a minority and with respect to which more than 50% of the net profit or loss attributable to the business accrues to shareholders who are members of a minority. WBE is defined as a business enterprise of which more than 50% of the voting shares or interest in the business is owned, controlled, and operated by women and with respect to which more than 50% of the net profit or loss attributable to the business accrues to the women shareholders.

The apparent Low Bidder shall, within 24 hours, after receipt of bids, provide the names of any MBE/WBE/small business subcontractors, description of work to be done by each, dollar value of work, and percentage of contract price. This information shall be included with the contract breakdown specified in Section 012000.1.4 of the specifications.

The Michigan State University Purchasing Department maintains a list of known Minority and Women Business Enterprises in the region for informational purposes. Bidders can obtain a copy of this list by calling (517) 355-0357. This list is not intended to be comprehensive. Similarly, it does not constitute an endorsement or certification of acceptability of the contractors and vendors included.

INSTRUCTION TO BIDDERS

ARTICLE 1

DEFINITIONS

- 1.1 Bidding Documents include the Advertisement or Invitation to Bid, Instruction to Bidders, the Bid Form, other sample bidding and Contract forms and the proposed Contract Documents including any Addenda issued prior to receipt of Bids.
- 1.2 All definitions set forth in ConsensusDocs 200- Standard Agreement and General Conditions Between Owner and Constructor (as modified by MSU) and in other Contract Documents are applicable to the Bidding Documents.
- 1.3 **Addenda** are written or graphic instruments, issued by the Architect prior to the receipt of Bids, which modify or interpret the Bidding Documents by addition, deletions, clarifications or corrections.
- 1.4 A **Bid** is a complete and properly signed proposal to do the Work or designated portion thereof, for the sums stipulated therein, supported by data called for by the Bidding Documents.
- 1.5 **Base Bid** is the sum stated in the Bid for which the Bidder offers to perform the Work described as the base, to which Work may be added or deducted for sums stated in Alternate Bids.
- 1.6 An **Alternate Bid** (or Alternate) is an amount stated in the Proposal to be added to or deducted from the amount of the Base Bid if the corresponding change in project scope or materials or methods of construction described in the Bidding Documents is accepted.
- 1.7 A **Unit Price** is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the Contract Documents.
- 1.8 A **Bidder** is one who submits a Bid for a prime Contract with the Owner for the Work described in the proposed Contract Documents.
- 1.9 A **Sub-bidder** is one who submits a Bid to a Bidder for materials or labor for a portion of the Work.
- 1.10 **Bid Manager** is the Oracle Primavera Unifier Bid Manager application used the by the Owner to received competitive bids for this project.

ARTICLE 2

BIDDER'S REPRESENTATION

- 2.1 Each Bidder, by making his/her Bid, represents that:
- 2.1.1 They have read and understand the Bidding Documents and their Bid is made in accordance therewith.
 - 2.1.2 They have visited the site and are familiar with the local conditions under which the Work is to be performed.
 - 2.1.3 Their Bid is based upon the materials, systems and equipment described in the Bidding Documents, without exceptions.

ARTICLE 3

BIDDING DOCUMENTS

3.1 COPIES

3.1.1 Bidders may obtain complete sets of the Bidding Documents via the MSU PLANNING, DESIGN AND CONSTRUCTION web page at <https://ipf.msu.edu/construction/partners/prospective-partners>, or as outlined in the Advertisement for Bids, page AB-2.

- 3.1.2 Complete sets of Bidding Documents shall be used in preparing Bids; neither the Owner nor the Architect assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 3.1.3 The Owner or Architect, in making copies of the Bidding Documents available on the above terms, does so only for the purpose of obtaining Bids on the Work and does not confer a license or grant for any other use.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

- 3.2.1 Bidders shall promptly notify the Architect of any ambiguity, inconsistency or error which they may discover upon examination of the Bidding Documents or of the site and local conditions.
- 3.2.2 Bidders requiring clarification or interpretation of the Bidding Documents shall make a written request to be received by the Architect at least fourteen days prior to the date for receipt of Bids.
- 3.2.3 Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes.

3.3 SUBSTITUTIONS

3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

3.3.2 No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the Architect at least fourteen days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data, and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It is the burden of the bidder proposing the substitution to establish its merits. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

3.3.3 If the Architect approves any proposed substitution, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

3.4 ADDENDA

3.4.1 The Architect and Owner will endeavor to notify all known plan holders of addenda issued, but it is the Bidder's responsibility to verify receipt of all addenda.

3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

3.4.3 Normally Addenda will not be issued later than five days prior to the date for receipt of Bids except an Addendum, if necessary, postponing the date for receipt of Bids or withdrawing the request for Bids.

3.4.4 Each Bidder shall ascertain prior to submitting their Bid that they have received all Addenda issued, and receipt of all Addenda shall be acknowledged on their bid.

ARTICLE 4

BIDDING PROCEDURE

4.1 FORM AND STYLE OF BIDS

4.1.1 Bids shall be submitted via the Bid Manager on the form specified.

4.1.2 All fields on the Bid Form shall be completed.

4.1.3 All requested Alternates shall be listed and quoted in the Bid Manager. Failure to quote a requested Alternate will be cause to reject the Bid.

4.1.3.1 If an alternate is added via Addendum, bidders will include by [adding new line to bid form, clearly labeling ALTERNATE X(x being the number)] or [providing pricing on an attachment, also clearly labeling pricing for Alternate.]

4.1.4 All requested Unit Prices shall be listed and quoted via attachment in the Bid Manager. Failure to quote a requested Unit Price will be cause to reject the Bid.

4.1.5 Acknowledge the receipt of the last Addendum on the Bid Form. By acknowledging this addendum, Bidder also acknowledges receipt of all prior consecutive addenda (e.g., acknowledging Addendum 3 also acknowledges Addendum 1 and 2).

4.1.6 Bidder shall make no additional stipulations on the Bid Form nor qualify its Bid in any manner.

4.1.7 By submitting a Bid via the Bid Manager, the Bidder has committed the offer to perform the Work. The Owner will rely on this document as properly signed by the Bidder. The Owner may rely on this commitment, including submitting a claim on the Bidder's Bid Bond if they fail to enter into a contract per the project manual.

4.2 BID SECURITY

4.2.1 Any base bid greater than \$50,000 shall be accompanied by a Bid Security in the form of a bid bond made payable to the Board of Trustees, Michigan State University, in the amount of not less than five percent (5%) of the Base Bid, as a proposal guarantee, pledging that the Bidder will enter into a Contract with the Owner on the terms stated in its Bid, and will furnish bonds as described hereunder in Article 8 covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Bidder shall attach a scanned copy of the bid bond to the bid in Unifier Bid Manager.

As an alternative to a bid bond, Bidders may provide certified check, cashiers' check, or money order made payable to the Board of Trustees, Michigan State University, in the amount of not less than five percent (5%) of the Base Bid, to be delivered to MSU Infrastructure Planning and Facilities, 1147 Chestnut Road, Room 101, East Lansing, MI 48824. The proposal guarantee of Bidders under consideration will be returned immediately after approval of contracts by the Owner; those of all others will normally be returned upon request within 48 hours after bid opening.

Should the Bidder refuse to enter into a Contract, or fail to furnish such bonds within 30 days of notification of intent to award, the amount of the Bid Security shall be forfeited to the Owner as liquidated damages, not as penalty.

4.2.2 The bonding firm must be listed on the current U.S. Department of Treasury Circular 570, rated A- or better by Best, and be licensed to do business in the State of Michigan. The bonds are to be made out to "Michigan State University, Board of Trustees."

4.2.3 The Owner will have the right to retain the Bid Security of Bidders under consideration until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

4.3 SUBMISSION OF BIDS

- 4.3.1 Bids shall be completed prior to the time and date for receipt of Bids indicated in the Advertisement or Invitation to Bid, or any extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will not be considered.
- 4.3.2 Bidder shall assume full responsibility for timely delivery at location designated for receipt of Bids.
- 4.3.3 Oral, telephone, paper, or faxed Bids are invalid and will not receive consideration.

4.4 MODIFICATION OR WITHDRAWAL OF BID

- 4.4.1 A Bid may not be modified, withdrawn, or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and Bidder so agrees in submitting his/her Bid.
- 4.4.2 Prior to the time and date designated for receipt of Bids, Bids submitted early may be modified or withdrawn only by withdrawing current Bid, and resubmitting within the Bid Manager.
- 4.4.3 Bid security shall be in an amount sufficient for the Bid as modified or resubmitted.

4.5 BIDDER REGISTRATION

- 4.5.1 The Owner will only receive Bids via the Bid Manager, which requires prior registration and invitation. The Bidder is responsible to familiarize itself with this system and request access in a timely manner.
- 4.5.2 The Owner will endeavor to maintain a list of all interested bidders, and invite to all public bids. Bidders interested in being added to this list must register. Registration information can be found at <https://ipf.msu.edu/construction/partners/prospective-partners>.
- 4.5.3 Bidders are encouraged to continue to monitor projects via plan rooms and other advertising venues. They must express interest to bid on MSU projects by request at least 7 days prior to a bid opening. Owner takes no responsibility for inviting a bidder after that date.

ARTICLE 5

CONSIDERATION OF BIDS

5.1 OPENING OF BIDS

- 5.1.1 Unless stated otherwise in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be opened publicly and will be read aloud. Opening will generally take place in MSU Infrastructure Planning and Facilities Building, 1147 Chestnut Road, East Lansing, Michigan 48824.

5.1.1.1 Unless stated otherwise in the Advertisement or Invitation to Bid, the Owner will endeavor to share bid results within 24 hours of opening.

5.1.1.2 The Owner will endeavor to stream the bid opening, and will share details in the bid invitation

5.2 REJECTION OF BIDS

5.2.1 The Owner shall have the right to reject any or all Bids.

5.3 ACCEPTANCE OF BID (AWARD)

5.3.1 The Owner shall have the right to waive any informality or irregularity in any Bid received.

5.3.2 If the University accepts any alternates, it will do so in the order representing the Owner's opinion of the best value to Michigan State University. The Owner shall be the sole judge of value. The low bidder will be determined on the basis of the sum of the base bid and the alternates accepted.

5.4 ACCEPTANCE OF CONTRACTOR AND SUBCONTRACTORS

5.4.1 Each portion of the Work shall be performed by an organization equipped and experienced to do the Work in each particular field, and no portion shall be reserved by the Contractor unless they are so equipped and experienced. Within 24 hours after the receipt of Bids, the successful Contractor shall submit a list of each Subcontractor proposed for each section of the Work. Subcontractors shall be satisfactory to the Owner. Unless authorized to the contrary in writing from the Owner, Subcontracts shall be awarded to the firms named in this list. Acceptance of the Bid does not imply approval of the Subcontractors subsequently named, but each Subcontractor shall be approved individually.

ARTICLE 6

QUALIFICATION OF CONTRACTORS

6.1 SUBMISSION OF QUALIFICATION STATEMENT

6.1.1 Bidders to whom award of a Contract is under consideration shall submit to the Architect upon his/her request, a properly executed Contractor's Qualification Statement, Consensus Docs 221 – Constructor's Statement of Qualifications for a Specific Project, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

6.2 NONDISCRIMINATION

6.2.1 In performing under this Contract, the Contractor agrees not to discriminate against any employee, or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height or weight, marital status or handicap. Subcontracts with each Subcontractor will contain a provision requiring nondiscrimination in employment, as herein specified. Any breach of this covenant may be regarded as a material breach of this Contract. The foregoing is included as a part of the University's institutional Affirmative Action/Equal Opportunity commitment.

6.3 APPROVED ASBESTOS ABATEMENT CONTRACTORS

6.3.1 The Department of Environmental Health and Safety (EHS) annually prequalifies asbestos abatement contractors to perform asbestos abatement work on Campus. Asbestos abatement work shall only be performed by one of the asbestos abatement contractors on the approved list. The current list is available from the PDC Project Representative, the Environmental Coordinator for EHS, and at <https://ehs.msu.edu/enviro/asbestos/index.html>.

ARTICLE 7

POST-BID INFORMATION

7.1 SUBMISSIONS

7.1.1 Unless waived by the Architect, the apparent low Bidder shall, within 24 hours after receipt of bids, submit the following information to the Architect:

7.1.1.1 A designation of the Work to be performed by the Bidder with their own forces.

7.1.1.2 The proprietary names and the suppliers of principal items or systems of material and equipment proposed for the Work.

7.1.1.3 A list of names of the Subcontractors or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for each division and/or major subdivision, for the Owner's approval.

7.1.1.4 The names of the MBE/WBE and a description of work to be done by each, dollar value of Work and percentage of Contract price.

7.1.1.5 List of representatives authorized to perform Unifier functions on behalf of the contractor using the Unifier New Company Request, available at [Unifier System Vendor Information Form](#).

7.1.1.6 Certificate of Insurance demonstrating compliance with project requirements.

7.1.2 At the option of the Owner, the Bidder may be required to establish to the satisfaction of the Architect and the Owner the capability, reliability, and responsibility of the proposed Contractor and Subcontractors to furnish and perform the Work.

- 7.1.3 Subcontractors and other persons and organizations proposed by the Bidder and accepted by the Owner and the Architect must be used on the Work for which they were proposed and accepted and shall not be changed except with the written approval of the Owner and the Architect.

ARTICLE 8

PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

8.1 OWNER'S RIGHT TO REQUIRE BONDS

- 8.1.1 Each Bidder under a proposal in which the base bid exceeds \$50,000, shall include the premiums for furnishing a Performance Bond and also Labor Material Bond, each in the full amount of the proposal sum as specified in the Owner / Constructor Agreement.
- 8.1.2 The bonding firm must be listed on the current U.S. Department of Treasury Circular 570, rated A- or better by Best, and be licensed to do business in the State of Michigan. The bonds are to be made out to "Michigan State University, Board of Trustees."
- 8.1.3 In assuming assigned Subcontractor by the successful Bidder for general building work as specified, each assigned Subcontractor for each Subcontract shall reimburse the General Contractor his/her proportionate share of the premiums for bonds.

8.2 TIME OF DELIVERY AND FORM OF BONDS AND INSURANCE

- 8.2.1 The Bidder shall deliver two (2) copies of the required bonds and insurance to the Owner not later than the date of execution of the Contract.
- 8.2.2 The Bidder shall require the Attorney-In-Fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his/her Power of Attorney.

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 FORM TO BE USED

- 9.1.1 The Agreement for the Work will be governed by the project manual, and by the terms and conditions of ConsensusDocs 200- Standard Agreement and General Conditions Between Owner and Constructor (as modified by MSU).
- 9.1.2 If the project is under \$250,000, an MSU Purchase Order will be used and the terms and conditions of ConsensusDocs 200- Standard Agreement and General Conditions Between Owner and Constructor (as modified by MSU), will serve as the applicable General Conditions for administration of the Work.

- 9.1.3 If the project is over \$250,000, the ConsensusDocs 200- Standard Agreement and General Conditions Between Owner and Constructor will be used and the terms and conditions of that Agreement will be formalized through the execution of a Contract Finalization Form.

ARTICLE 10

APPLICATION FOR PAYMENT

10.1 FORM TO BE USED

- 10.1.1 Applications for Payment shall be submitted in Unifier in accordance with the Pay Apps (Pay Applications) business process. Refer to the MSU IPF website for more information

ARTICLE 11

ELECTRONIC TRANSACTIONS

11.1 UNIFIER

- 11.1.1 The Owner reserves the right to require that any or all transactions and submissions be conducted and delivered electronically through [Unifier](#), a web-based project management software system. Unifier functions on most popular web browsers. If the owner requires the use of Unifier, the owner will provide the necessary licenses for access into Unifier and the initial training necessary to use Unifier. Access to Unifier will be password restricted, and any proposal, acceptance, quote or other information submitted through Unifier through the use of a party's password shall be deemed to be the submission of such party and any proposal, acceptance, quote or other information in the submission shall be binding on such party as if such proposal, acceptance, quote or other information was in a writing signed by such party. Owner shall not be required to verify the validity of any such submission or inquire as to the authority of the user gaining access to Unifier through the use of a party's password. The following are the minimum Unifier user software and hardware requirements. It is the responsibility of the vendor to verify compatibility of their systems with Unifier. For more information, see [Unifier System Vendor Information Form](#).

11.2 CONTRACT EXECUTION

- 11.2.1 The Owner may choose to accept a scanned signed contract, provided through Unifier, as acceptance of the agreement. The Owner will rely on this document as properly signed by the Constructor.

State of Michigan

WHPWRequest@michigan.gov

General Request No.: 544

Requestor:

Project Description:

Project Number:

Statewide County
Commercial Prevailing Wage Rates

GENERAL INFORMATION

Table header with columns: Classification, Name, Description, Straight Hourly, Time and a Half, Double Time, Overtime Provision

A Operator (0-6 months)

IBEW 876 & IBEW 17 - Teledata \$38.27 \$52.09 \$65.91 H H H X X X D Y

Apprentice Rates:

Table listing apprentice rates for Lineman (6th - 6 months) through (1st - 6 months) with corresponding hourly, time and a half, and double time rates.

A Operator (7-12 months)

IBEW 876 & IBEW 17 - Teledata \$40.95 \$55.96 \$70.96 H H H X X X D Y

Apprentice Rates:

Table listing apprentice rates for Lineman (6th - 6 months) through (1st - 6 months) with corresponding hourly, time and a half, and double time rates.

General Request #: 544
Requestor:
Project Description:
Project Number:
County: Statewide

GENERAL INFORMATION

Date Rendered: 2/22/2024

Commercial Prevailing Wage Rates

GENERAL INFORMATION

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<u>Classification</u>			Straight	Time and	Double	
Name	Description		Hourly	a Half	Time	Overtime Provision
<hr/>						
A Operator (over 1 yr)						
		IBEW 876 & IBEW 17 - Teledata	\$45.81	\$62.97	\$80.12	H H H X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
B Operator (0-6 months)						
		IBEW 876 & IBEW 17 - Teledata	\$34.25	\$46.29	\$58.33	H H H X x X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
B Operator (over 6 months)						
		IBEW 876 & IBEW 17 - Teledata	\$39.35	\$53.65	\$67.94	H H H X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	

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<u>Classification</u>		Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				
Boilermaker					
Boilermaker	B0169	\$72.47	\$107.55	\$142.63	H H H H H H D Y
Apprentice Rates:					
	1st Period	\$53.53	\$79.15	\$104.75	
	2nd Period	\$55.14	\$81.56	\$107.97	
	3rd Period	\$56.73	\$83.94	\$111.15	
	4th Period	\$58.31	\$86.31	\$114.31	
	5th Period	\$59.85	\$88.62	\$117.39	
	6th Period	\$63.03	\$93.39	\$123.75	
	7th Period	\$66.17	\$98.10	\$130.03	
	8th Period	\$69.32	\$102.83	\$136.33	
Bricklayer					
Brick Masonry, Stone Masonry, Artificial Masonry	BR2-31-BS	\$53.52	\$67.86	\$82.19	H H H H H H D N
Apprentice Rates:					
	0-749 hours	\$42.05	\$50.65	\$59.25	
	750-1,499 hours	\$43.49	\$52.81	\$62.13	
	1,500-2,249 hours	\$44.92	\$54.95	\$64.99	
	2,250-2,999 hours	\$46.35	\$57.10	\$67.85	
	3,000-3,749 hours	\$47.79	\$59.26	\$70.73	
	3,750-4,499	\$49.22	\$61.41	\$73.59	
	4,500-5,249 hours	\$50.65	\$63.55	\$76.45	
	5,250 hours	\$52.09	\$65.71	\$79.33	
Pointing, Caulking and Cleaning	BR2-31-PCC	\$53.52	\$67.86	\$82.19	H H H H H H D N
Apprentice Rates:					
	0-749 hours	\$43.49	\$52.81	\$62.13	
	750-1,499 hours	\$44.92	\$54.95	\$64.99	
	1,500- 2,249 hours	\$46.35	\$57.10	\$67.85	
	2.250 -2,999 hours	\$47.79	\$59.26	\$70.73	
	3,000-3,749 hours	\$24.37	\$36.56	\$48.74	
	3,750-4,499 hours	\$50.65	\$63.55	\$76.45	
	4,500 hours	\$53.52	\$67.85	\$82.19	

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<u>Classification</u>			Straight	Time and	Double	Overtime Provision
Name	Description		Hourly	a Half	Time	
<hr/>						
Cable spicer or COE foreman		IBEW 876 & IBEW 17 - Teledata	\$42.53	\$58.24	\$73.94	H H H X X X X D Y
	Apprentice Rates:					
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Cable spicer, Central Office Employee		IBEW 876 & IBEW 17 - Teledata	\$40.71	\$55.61	\$70.51	H H H X X X X D Y
	Apprentice Rates:					
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Carpenter						
Resilient floorlayer		CA1004FL	\$49.49	\$64.19	\$78.89	X X H H H H H D N
	Apprentice Rates:					
	1st Year		\$38.95	\$48.46	\$57.97	
	2nd Year		\$40.31	\$50.50	\$60.69	
	3rd Year		\$43.02	\$54.57	\$66.11	
	4th Year		\$45.74	\$58.65	\$71.55	
Carpenter		CA1004L	\$50.82	\$65.79	\$80.75	X X H H H H H D N
	Apprentice Rates:					
	1st Year		\$41.84	\$52.32	\$62.79	
	2nd Year		\$43.34	\$54.57	\$65.79	
	3rd Year		\$46.33	\$59.05	\$71.77	
	4th Year		\$49.32	\$63.54	\$77.75	

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<u>Classification</u>			Straight	Time and	Double	
Name	Description		Hourly	a Half	Time	Overtime Provision
<hr/>						
Cell Tower Tech						
		IBEW 876 & IBEW 17 - Teledata	\$38.78	\$52.83	\$66.87	H H H X X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Cement Mason						
Cement Mason		BR2-31-CM	\$47.16	\$60.76	\$74.36	X H H H H H H D N
Apprentice Rates:						
	0-749 hours		\$37.64	\$46.48	\$55.32	
	750-1,499 hours		\$39.00	\$48.52	\$58.04	
	1,500-2,249 hours		\$40.36	\$50.56	\$60.76	
	2,250-2,999 hours		\$41.72	\$52.60	\$63.48	
	3,000-3,749 hours		\$43.08	\$54.64	\$66.20	
	3,750-4,499 hours		\$44.44	\$56.68	\$68.92	
	4,500 hours		\$47.16	\$60.76	\$74.36	
Cement Mason		CE514-L	\$47.09	\$61.77	\$76.45	H H H H H H H D Y
Apprentice Rates:						
	1st Year		\$36.81	\$46.35	\$55.89	
	2nd Year		\$39.75	\$50.76	\$61.77	
	3rd Year		\$42.69	\$55.17	\$67.65	
Communication Technician						
		IBEW 876 & IBEW 17 - Roadway	\$67.89	\$98.24	\$128.58	H H H H H H H D Y

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<u>Classification</u>		Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				
Drywall					
Drywall Taper and Finisher	PT-845-DF	\$44.64	\$58.17	\$71.75	H H H H H H D N

Apprentice Rates:

1st level	\$31.06	\$37.80	\$44.59
2nd level	\$36.49	\$45.95	\$55.45
3rd level	\$41.92	\$54.09	\$66.31

Electrician

Inside wireman	EC-252-IW	\$77.98	\$100.47	\$122.96	H H D H D D D D N
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Apprentice Rates:

1st Period	\$44.21	\$51.51	\$59.94
2nd Period	\$50.44	\$62.70	\$74.95
3rd Period	\$55.95	\$69.44	\$82.94
4th Period	\$61.46	\$77.21	\$92.95
5th Period	\$66.96	\$84.95	\$102.94
6th Period	\$72.47	\$92.71	\$112.95

Subdivision of county Townships of Onondaga, Leslie, Stockbridge and Bunker Hill ONLY.

Sound and Communications Installer Technician BICSI certified & 6,000 OJT Straight time Rate \$54.32 Time and Half \$73.16 Double Time \$91.99	EC-252-SC	\$51.10	\$66.96	\$83.79	H H D H D D D D N
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Apprentice Rates:

Period 1	\$33.56	\$40.49	\$48.72
Period 2	\$35.31	\$43.02	\$52.07
Period 3	\$37.07	\$45.56	\$55.43
Period 4	\$38.82	\$48.11	\$58.80
Period 5	\$40.57	\$50.63	\$62.14
Period 6	\$44.09	\$55.70	\$68.85
Period 7	\$47.59	\$60.76	\$75.56
Period 8	\$49.34	\$63.29	\$78.92
Technician BICSI certification & 6,000 OJT	\$54.32	\$73.16	\$91.99

Subdivision of county Onondaga, Leslie, Stockbridge & Bunker Hill townships

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Name	Description		Hourly	a Half	Time	
Inside Wireman		EC-665-IW	\$69.20	\$89.45	\$109.70	H H D H H H D D Y
	Apprentice Rates:					
	1st Period		\$27.98	\$36.52	\$45.06	
	2nd period		\$30.12	\$39.72	\$49.34	
	3rd Period		\$34.37	\$45.05	\$55.73	
	4th Period		\$49.01	\$62.90	\$76.79	
	5th Period		\$51.14	\$66.10	\$81.05	
	6th Period		\$53.28	\$69.31	\$85.33	
<u>Subdivision of county</u>	Lansing, Meridian, Williamston, Locke, Delhi, Alaiedon, Wheatfield, Leroy, Aurelius, Vevay, Ingham, & White Oak townships					
Sound and Communication Journeyman	a 4 day schedule of ten hours a day is allowed Monday thru Friday.	EC-665-SD	\$66.56	\$86.06	\$105.56	H H D H H H D D Y
	Apprentice Rates:					
	1st period		\$26.80	\$35.03	\$43.26	
	2nd period		\$28.86	\$38.11	\$47.37	
	3rd period		\$32.98	\$43.26	\$53.55	
	4th period		\$47.07	\$60.45	\$73.82	
	5th period		\$49.13	\$63.53	\$77.94	
	6th period		\$51.19	\$66.63	\$82.05	
<u>Subdivision of county</u>	Lansing, Meridian, Williamston, Locke, Delhi, Alaiedon, Wheatfield, Leroy, Aurelius, Vevay, Ingham and White Oak townships					
Elevator Constructor						
Elevator Constructor Mechanic		EL-85	\$96.72		\$152.57	D D D D D D D D Y
	Apprentice Rates:					
	1st year		\$68.96		\$99.68	
	2nd year		\$74.88		\$111.18	
	3rd year		\$77.85		\$116.95	
	4th year		\$84.65		\$129.33	

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<u>Classification</u>			Straight	Time and	Double	
Name	Description		Hourly	a Half	Time	Overtime Provision
<hr/>						
Equipment Operator (line truck & man lifts)						
		IBEW 876 & IBEW 17 - Teledata	\$38.78	\$52.83	\$66.87	H H H X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Fiber Optic Splicer						
		IBEW 876 & IBEW 17 - Roadway	\$67.89	\$98.24	\$128.58	H H H H H H D Y
Foreman						
		IBEW 876 & IBEW 17 - Roadway	\$75.47	\$109.61	\$143.74	H H H H H H D Y
In charge of three man crew						
		IBEW 876 & IBEW 17 - Teledata	\$40.71	\$55.61	\$70.51	H H H X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	

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Name	Description		Hourly	a Half	Time	
Glazier						
Glazier	4 tens allowed on consecutive days	GL-826	\$49.84	\$67.73	\$85.62	H H H H H H H D Y
Apprentice Rates:						
	1st level		\$31.62	\$40.40	\$49.18	
	2nd level		\$35.12	\$45.66	\$56.18	
	3rd Level		\$40.38	\$53.54	\$66.70	
	4th level		\$45.66	\$61.46	\$77.26	
Heat and Frost Insulator						
Spray Insulation		AS25S	\$25.29	\$36.51	\$47.73	X X X H H H H H N
Heat and Frost Insulator and Asbestos Worker						
Heat and Frost Insulators and Asbestos Workers		AS47	\$52.00	\$68.89	\$85.77	X X X H H H H D Y
Apprentice Rates:						
	1st year		\$26.38	\$33.69	\$40.99	
	2nd year		\$30.15	\$38.92	\$47.68	
	3rd year		\$33.92	\$44.15	\$54.37	
	4th year		\$37.70	\$49.39	\$61.08	
	5th year		\$41.48	\$54.63	\$67.78	
IBEW 252						
Installer Technician		EC-252-sc				H H H D N
Apprentice Rates:						
	Period 1		\$33.56	\$40.49	\$48.72	
	Period 2		\$35.31	\$43.02	\$52.07	
	Period 3		\$37.07	\$45.56	\$55.43	
	Period 4		\$38.82	\$48.11	\$58.80	
	Period 5		\$40.57	\$50.63	\$62.14	
	Period 6		\$44.09	\$55.70	\$68.85	
	Period 7		\$47.59	\$60.76	\$75.56	
	Period 8		\$49.34	\$63.29	\$78.92	
	Technician BICSI certification & 6,000 OJT		\$54.32	\$73.16	\$91.99	

Subdivision of county Onondaga, Leslie, Stockbridge & Bunker Hill townships

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Name	Description		Hourly	a Half	Time	
<hr/>						
Installer - Repairman						
		IBEW 876 & IBEW 17 - Teledata	\$38.78	\$52.83	\$66.87	H H H X X X X D Y
		Apprentice Rates:				
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Ironworker						
Reinforced Iron Work		IR-25-RF	\$69.51	\$85.85	\$102.19	H H D H H D D D N
		Apprentice Rates:				
	Level 8		\$66.76	\$82.48	\$98.19	
	Level 7		\$66.76	\$82.48	\$98.19	
	Level 1		\$52.63	\$64.23	\$75.83	
	Level 2		\$54.68	\$66.77	\$78.86	
	Level 3		\$56.56	\$68.98	\$81.40	
	Level 4		\$59.41	\$72.65	\$85.88	
	Level 5		\$62.27	\$76.32	\$90.37	
	Level 6		\$66.76	\$82.48	\$98.19	
Rigging Work		IR-25-RIG	\$76.08	\$92.93	\$109.78	H H D H H H D D N
		Apprentice Rates:				
	Level 8		\$69.43	\$84.94	\$100.45	
	Level 1		\$51.75	\$62.38	\$73.01	
	Level 2		\$52.56	\$63.54	\$74.52	
	Level 3		\$54.83	\$66.33	\$77.83	
	Level 4		\$57.51	\$69.71	\$81.91	
	Level 5		\$60.60	\$73.67	\$86.74	
	Level 6		\$63.27	\$77.04	\$90.80	
	Level 7		\$66.35	\$80.99	\$95.62	

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Name	Description		Hourly	a Half	Time	Overtime Provision
=====						
Structural, ornamental, welder and pre-cast	If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday.	IR-25-STR	\$76.21	\$102.75	\$129.29	H H D H H H D D Y
Apprentice Rates:						
	Level 8		\$69.43	\$84.94	\$100.45	
	Level 1		\$51.25	\$61.88	\$72.51	
	Level 2		\$52.56	\$63.54	\$74.52	
	Level 3		\$54.83	\$66.33	\$77.83	
	Level 4		\$57.51	\$70.34	\$83.17	
	Level 5		\$60.60	\$73.67	\$86.74	
	Level 6		\$63.27	\$77.04	\$90.80	
	Level 7		\$66.35	\$80.98	\$95.62	
Journeyman Signal Technician		IBEW 876 & IBEW 17 - Roadway	\$67.89	\$98.24	\$128.58	H H H H H H D Y
Journeyman Specialist		IBEW 876 & IBEW 17 - Roadway	\$76.98	\$111.87	\$146.76	H H H H H H D Y
Labor Crew Foreman		IBEW 876 & IBEW 17 - Roadway	\$61.86	\$89.19	\$116.52	H H H H H H D Y
Laborer	Journeyman - building and heavy construction craft laborer, portable concrete mixer operator, air, electric or gasoline tool operator, hot dope carrier, tar kettle tender, gasoline vibrators, concrete gas buggies, concrete saw, signal person and top pe	L499L	\$38.53	\$51.20	\$63.86	X X H H H H D Y
Apprentice Rates:						
	0-1,000 hours		\$32.20	\$41.70	\$51.20	
	1,001-2,000 hours		\$33.46	\$43.60	\$53.73	
	2,001-3,000 hours		\$34.73	\$45.50	\$56.26	
	3,001-4,000 hours		\$37.26	\$49.30	\$61.33	
Ground Burner		L499LG	\$50.83	\$66.15	\$81.46	X X H H H H D Y

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<u>Classification</u>		Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				
High Burner	L499LH	\$51.33	\$66.90	\$82.46	H H H H H H D Y

Apprentice Rates:

Laborer Road Class 1: asphalt shoveler or loader, yard man, fence erector tender, dumper, joint filling, form setting, form stripper, pavement reinforcing, waterproofing, seal coating, bridge painting, sandblasting, pressure grouting, RC equipment	MITA-RZ2-C1	\$45.39	\$58.38	\$71.36	H H H H H H D Y
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Apprentice Rates:

- 3,001-4,000 hours
- 2,001-3,000 hours
- 1,001-2,000 hours
- 0-1,000 hours

3,001-4,000 hours	\$44.09	\$56.42	\$68.76
2,001-3,000 hours	\$41.49	\$52.52	\$63.56
1,001-2,000 hours	\$40.20	\$50.59	\$60.98
0-1,000 hours	\$38.90	\$48.64	\$58.38

Laborer Road Class 2: mixer operator, air or electric tool operator, spreader, boxman, concreter paddler, power chain saw operator, paving patch truck dumper, tunnel mucker, concrete saw operator, dry pack machine and roto-mill grounds person	MITA-RZ2-C2	\$45.59	\$58.18	\$71.26	H H H H H H D Y
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Apprentice Rates:

- 3,001-4,000 hours
- 2,001-3,000 hours
- 1,001-2,000 hours
- 0-1,000 hours

3,001-4,000 hours	\$44.28	\$56.21	\$68.64
2,001-3,000 hours	\$41.66	\$52.28	\$63.40
1,001-2,000 hours	\$40.36	\$50.33	\$60.80
0-1,000 hours	\$39.05	\$48.36	\$58.18

Laborer Road Class 3: tunnel miner, finish tenders, guard rail builder, median barrier installer, earth retention barrier and wall installer, fence erector, bottom man, powder man, wagon drill and air track operator, curb and side rail setter	MITA-RZ2-C3	\$45.43	\$58.64	\$71.84	H H H H H H D Y
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Apprentice Rates:

- 3,001-4,000 hours
- 2,001-3,000 hours
- 1,001-2,000 hours
- 0-1,000 hours

3,001-4,000 hours	\$44.11	\$56.66	\$69.20
2,001-3,000 hours	\$41.47	\$52.70	\$63.92
1,001-2,000 hours	\$40.15	\$50.72	\$61.28
0-1,000 hours	\$38.83	\$48.74	\$58.64

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Laborer Road Class 4:	asphalt raker	MITA-RZ2-C4	\$46.18	\$59.56	\$72.94	H H H H H H D Y
	Apprentice Rates:					
	3,001-4,000 hours		\$44.84	\$57.55	\$70.26	
	2,001-3,000 hours		\$42.17	\$53.54	\$64.92	
	1,001-2,000 hours		\$40.83	\$51.54	\$62.24	
	0-1,000 hours		\$39.49	\$49.52	\$59.56	
Laborer Road Class 5:	pipe layers, oxy-gun	MITA-RZ2-C5	\$46.05	\$59.37	\$72.68	H H H H H H D Y
	Apprentice Rates:					
	3,001-4,000 hours		\$44.72	\$57.37	\$70.02	
	2,001-3,000 hours		\$42.06	\$53.38	\$64.70	
	1,001-2,000 hours		\$40.72	\$51.37	\$62.02	
	0-1,000 hours		\$39.39	\$49.38	\$59.36	
Laborer Road Class 6:	line form setter for curb or pavement, asphalt screed checker/screw man on asphalt paving machines	MITA-RZ2-C6	\$46.39	\$59.88	\$73.36	H H H H H H D Y
	Apprentice Rates:					
	3,001-4,000 hours		\$45.04	\$57.85	\$70.66	
	2,001-3,000 hours		\$42.34	\$53.80	\$65.26	
	1,001-2,000 hours		\$41.00	\$51.79	\$62.58	
	0-1,000 hours		\$39.65	\$49.76	\$59.88	
Laborer Road Class 7:	concrete specialist - including finishing and trowling, cast in place or precast by any method	MITA-RZ2-C7	\$48.96	\$63.73	\$78.50	H H H H H H D Y
	Apprentice Rates:					
	3,001-4,000 hours		\$47.48	\$61.51	\$75.54	
	2,001-3,000 hours		\$44.53	\$57.08	\$69.64	
	1,001-2,000 hours		\$43.05	\$54.86	\$66.68	
	0-1,000 hours		\$41.58	\$52.66	\$63.74	
Asbestos & Lead Abatement Laborer	4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days	MLDC	\$50.60	\$65.37	\$80.13	H H H X X X D Y
	Apprentice Rates:					
	Trainee 600 hours +1 year		\$34.07			

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Laborer - Hazardous					
Class A Laborer - performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or feder	LHAZ-Z6-A	\$38.53	\$51.20	\$63.86	H H H H H H H D Y
Apprentice Rates:					
0-1,000 work hours		\$32.20	\$41.70	\$51.20	
1,001-2,000 work hours		\$33.46	\$47.09	\$60.72	
2,001-3,000 work hours		\$34.73	\$45.50	\$56.26	
3,001-4,000 work hours		\$37.26	\$49.29	\$61.32	
Class B Laborer - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.	LHAZ-Z6-B	\$39.53	\$52.70	\$65.86	H H H H H H H D Y
Apprentice Rates:					
0-1,000 work hours		\$32.95	\$42.82	\$52.70	
1,001-2,000 work hours		\$34.26	\$44.79	\$55.32	
2,001-3,000 work hours		\$35.58	\$46.77	\$57.96	
3,001-4,000 work hours		\$38.21	\$50.72	\$63.22	
Laborer - Landscape					
Class B1: Landscape Operator includes air, gas, and diesel equipment operator, lawn sprinkler installer, skidsteer, mini excavators, backhoe loaders, ride and walk behind trenchers, off road dump vehicle, articulated haulers, hydroseeder, wheel loaders	LLAN-Z1-A	\$32.40	\$42.43	\$52.95	X X H X X X H D Y
Class B2: Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, irrigation installers' tender, material mover	LLAN-Z1-B	\$30.40	\$39.93	\$49.45	X X H X X X H D Y
Class B1: Landscape Operator includes air, gas, and diesel equipment operator, lawn sprinkler installer, skidsteer, mini excavators, ride and walk behind trenchers, backhoe loaders, off road dump vehicle, articulated haulers, hydroseeder, wheel loaders	LLAN-Z2-A	\$32.40	\$42.96	\$53.48	X X H X X X H D Y
Class B2: Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, irrigation installers' tender material mover	LLAN-Z2-B	\$30.40	\$39.93	\$49.45	X X H X X X H D Y
Class C: landscape laborer with 90 or more calendar days worked	LLAN-Z2-C	\$24.66	\$33.27	\$41.87	H H H H H H H D N
Class D: Inexperienced landscape laborer - individual who has worked less than 90 calendar days	LLAN-Z2-D	\$15.54	\$23.31	\$31.08	H H H H H H H D N

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<u>Classification</u>			Straight	Time and	Double	Overtime Provision
Name	Description		Hourly	a Half	Time	
Laborer Underground - Tunnel, Shaft & Caisson						
Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.	LAUCT-Z2-1		\$38.97	\$50.26	\$61.54	X X X X X X X D Y
Apprentice Rates:						
	0-1,000 work hours		\$32.85	\$42.64	\$52.43	
	1,001-2,000 work hours		\$33.97	\$44.32	\$54.67	
	2,001-3,000 work hours		\$35.08	\$45.99	\$56.89	
	3,001-4,000 work hours		\$37.31	\$49.33	\$61.35	
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder	LAUCT-Z2-2		\$39.06	\$50.39	\$61.72	X X X X X X X D Y
Apprentice Rates:						
	0-1,000 work hours		\$32.92	\$42.75	\$52.57	
	1,001-2,000 work hours		\$34.04	\$44.43	\$54.81	
	2,001-3,000 work hours		\$35.16	\$46.11	\$57.05	
	3,001-4,000 work hours		\$37.39	\$49.45	\$61.51	
Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, con	LAUCT-Z2-3		\$39.16	\$50.54	\$61.92	X X X X X X X D Y
Apprentice Rates:						
	0-1,000 work hours		\$32.99	\$42.85	\$52.71	
	1,001-2,000 work hours		\$34.12	\$44.55	\$54.97	
	2,001-3,000 work hours		\$35.24	\$46.23	\$57.21	
	3,001-4,000 work hours		\$37.49	\$49.60	\$61.71	
Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.	LAUCT-Z2-4		\$39.58	\$51.17	\$62.76	X X X X X X X D Y
Apprentice Rates:						
	0-1,000 work hours		\$33.11	\$43.03	\$52.95	
	1,001-2,000 work hours		\$34.25	\$44.74	\$55.23	
	2,001-3,000 work hours		\$35.38	\$46.43	\$57.49	
	3,001-4,000 work hours		\$37.64	\$49.83	\$62.01	

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<u>Classification</u>		Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description				

Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)	LAUCT-Z2-5	\$39.58	\$51.17	\$62.76	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$33.31	\$43.33	\$53.35	
	1,001-2,000 work hours	\$34.45	\$45.04	\$55.63	
	2,001-3,000 work hours	\$35.60	\$46.77	\$57.93	
	3,001-4,000 work hours	\$37.89	\$50.20	\$62.51	
Class VI - Dynamite man and powder man.	LAUCT-Z2-6	\$39.34	\$52.38	\$65.41	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$33.54	\$43.67	\$53.81	
	1,001-2,000 work hours	\$34.70	\$45.41	\$56.13	
	2,001-3,000 work hours	\$35.86	\$47.15	\$58.45	
	3,001-4,000 work hours	\$38.18	\$50.63	\$63.09	
Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.	LAUCT-Z2-7	\$32.16	\$40.04	\$47.92	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$27.75	\$34.99	\$42.23	
	1,001-2,000 work hours	\$28.52	\$36.15	\$43.77	
	2,001-3,000 work hours	\$29.29	\$37.30	\$45.31	
	3,001-4,000 work hours	\$30.84	\$39.63	\$48.41	
Laborer -Underground Open Cut, Class I					
Construction Laborer	LAUC-Z3-1	\$36.91	\$47.01	\$57.10	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$31.39	\$40.40	\$49.41	
	1,001-2,000 work hours	\$32.38	\$41.88	\$51.39	
	2,001-3,000 work hours	\$33.38	\$43.38	\$53.39	
	3,001-4,000 work hours	\$35.37	\$46.37	\$57.37	

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<u>Classification</u>		Straight	Time and	Double	Overtime Provision
Name	Description	Hourly	a Half	Time	
Laborer -Underground Open Cut, Class II					
	Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector. LAUC-Z3-2	\$37.05	\$47.22	\$57.38	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$31.49	\$40.55	\$49.61	
	1,001-2,000 work hours	\$32.49	\$42.05	\$51.61	
	2,001-3,000 work hours	\$33.50	\$43.56	\$53.63	
	3,001-4,000 work hours	\$35.50	\$46.56	\$57.63	
Laborer -Underground Open Cut, Class III					
	Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon LAUC-Z3-3	\$37.17	\$47.40	\$57.62	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$31.58	\$40.68	\$49.79	
	1,001-2,000 work hours	\$32.59	\$42.20	\$51.81	
	2,001-3,000 work hours	\$33.60	\$43.72	\$53.83	
	3,001-4,000 work hours	\$35.61	\$46.73	\$57.85	
Laborer -Underground Open Cut, Class IV					
	Trench or excavating grade man. LAUC-Z3-4	\$37.22	\$47.47	\$57.72	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$31.62	\$40.74	\$49.87	
	1,001-2,000 work hours	\$32.63	\$42.26	\$51.89	
	2,001-3,000 work hours	\$33.64	\$43.78	\$53.91	
	3,001-4,000 work hours	\$35.66	\$46.80	\$57.95	
Laborer -Underground Open Cut, Class V					
	Pipe Layer (including crock, metal pipe, multiplate or other conduits) LAUC-Z3-5	\$37.36	\$47.68	\$58.00	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$31.73	\$40.91	\$50.09	
	1,001-2,000 work hours	\$32.74	\$42.42	\$52.11	
	2,001-3,000 work hours	\$33.76	\$43.96	\$54.15	
	3,001-4,000 work hours	\$35.79	\$47.00	\$58.21	

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Name	Description	Hourly	a Half	Time	
Laborer -Underground Open Cut, Class VI					
	Grouting man, top man assistant, audio visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation & repair of water service pipe & appurtenances	LAUC-Z3-6 \$34.66	\$43.63	\$52.60	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$29.70	\$37.86	\$46.03	
	1,001-2,000 work hours	\$30.58	\$39.18	\$47.79	
	2,001-3,000 work hours	\$31.46	\$40.50	\$49.55	
	3,001-4,000 work hours	\$33.23	\$43.16	\$53.09	
Laborer -Underground Open Cut, Class VII					
	Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.	LAUC-Z3-7 \$31.81	\$39.36	\$46.90	X X X X X X X D Y
Apprentice Rates:					
	0-1,000 work hours	\$27.56	\$34.66	\$41.75	
	1,001-2,000 work hours	\$28.30	\$35.76	\$43.23	
	2,001-3,000 work hours	\$29.04	\$36.88	\$44.71	
	3,001-4,000 work hours	\$30.52	\$39.10	\$47.67	
Landscape Laborer					
	Class A: Irrigation Foremen and Construction Foremen.	LLAN-Z1-A \$34.62	\$46.26	\$57.89	x X H X X x H D Y H
Landscape Laborer					
	Class A: Irrigation Foremen and Construction Foremen.	LLAN-Z1 \$34.62	\$46.26	\$57.89	X X H X X X X D Y
<u>Subdivision of county</u> Zones 1 & 2					
Lineman, Teledata Wireman					
		IBEW 876 & IBEW 17 - Teledata \$38.78	\$52.83	\$66.87	H H H X X X X D Y
Apprentice Rates:					
	Lineman (6th - 6 months)	\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)	\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)	\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)	\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)	\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)	\$22.91	\$30.85	\$38.78	

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Name	Description		Hourly	a Half	Time	
Operating Engineer						
Forklift, lull, extend-a-boom forklift	Work in excess of 12 per day M-F shall be paid at double time.	EN-324-FL	\$63.36	\$79.81	\$96.25	X X X X D D D D Y
Class I - diver/wet tender, engineer, blaster, leverman		EN-324-Statewide	\$82.82	\$107.82	\$132.82	x x X X X X X D N H
Class III - Deck equip. operator, maintenance of crane or excavator, tug/launch operator, loader/dozer on barge/deck machinery, truck-able tug, lead surveyor, ROV operator, AB deckhand, welder		EN-324-Statewide-III	\$76.82	\$98.82	\$120.82	X X X X X X X D N
Class IV - Deck equipment operator, machineryman/fireman, off road trucks, deck hand, tug engineer, assistant tug operator, blaster helper, deck hand, jet machine, subsea plow, trencher, tug engineer		EN-324-Statewide-IV	\$72.32	\$92.07	\$111.82	H X X X X X X D N x
Ind. Forklift/forktruck under 5,000 lb capacity power jacks/poer packs, composite crew only		EN-324-SW	\$64.70	\$81.75	\$98.80	H H D H H H D D Y
Compressor or Welding Machine	Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-AC	\$56.05	\$69.32	\$82.58	X X X X D D D D Y
Forklift or Straight Mast		EN-F	\$57.50	\$71.40	\$85.29	X X X X D D D D Y
	Four 10 hour days may be scheduled M-Th or T-F. Work not performed due to weather on M-Th may be scheduled on Friday					
Fireman or Oiler		EN-FO	\$55.02	\$67.84	\$80.65	X X X X D D D D Y
	Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.					
Lull or Extend-a-Boom Forklift	Four 10 hour days may be scheduled M-Th or T-F. Work not performed due to weather on M-Th may be scheduled on Friday	en-l	\$59.73	\$77.09	\$94.45	X X H H D D D D Y
Crane with main boom & jib 120' or longer	Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Worked not performed due to weather, Monday-Thursday may be scheuled Friday	en-os120	\$63.27	\$82.40	\$101.53	X X H H D D D D Y
Crane w/ main Boom & Jib 220' or longer	Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-OSA	\$64.38	\$84.07	\$103.75	X X H H D D D D Y

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Crane w/ main Boom & Jib 300' or longer scheduled Monday-Thursday or Tuesday-Friday. Work unable to be performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-OSA3	\$65.89	\$86.33	\$106.77	X X H H D D D D Y
Crane w/ main Boom & Jib 400' or longer scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-OSA4	\$78.46	\$101.49	\$124.52	X X X X X X X D Y
Crane with main boom and jib 140' or longer scheduled Monday-Thursday or Tuesday-Friday. Work unable to be performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-OSB	\$64.09	\$83.63	\$103.17	X X H H D D D D Y
Regular Crane Operator, Job Mechanic, Concrete Pump with Boom Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.	EN-RC	\$66.04	\$83.65	\$101.26	X X X X D D D D Y

Apprentice Rates:

0-999 hours	\$51.13	\$64.18	\$77.22
1,000-1,999 hours	\$52.99	\$66.96	\$80.94
2,000-2,999 hours	\$54.86	\$69.77	\$84.68
3,000-3,999 hours	\$56.72	\$72.56	\$88.40
4,000-4,999 hours	\$58.59	\$75.36	\$92.14
5,000-5,999 hours	\$60.44	\$78.15	\$95.84

Regular Engineer, Hydro Excavator & Remote Controlled Concrete Breaker Four 10 hour days may be scheduled Monday-Thursday or Tuesday-Friday. Work not performed due to weather, Monday-Thursday may be scheduled on Friday.	en-re	\$65.07	\$82.26	\$99.44	X X X X D D D D Y
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Apprentice Rates:

5,000-5,999 hours	\$63.09	\$81.87	\$100.64
4,000-4,999 hours	\$61.11	\$78.90	\$96.68
3,000-3,999 hours	\$59.13	\$75.93	\$92.72
2,000-2,999 hours	\$57.16	\$72.97	\$88.78
1,000-1,999 hours	\$55.19	\$70.02	\$84.84
1-999 hours	\$53.21	\$67.02	\$80.85

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Name	Description		Straight Hourly	Time and a Half	Double Time	
					Overtime Provision	
Journeyman - Class IV	OE-324-Statewide		\$56.46	\$70.09	\$83.72	X X X X X X X D Y
Apprentice Rates:						
	31-36 months		\$62.01	\$80.44	\$98.88	
	25-30 months		\$60.08	\$77.54	\$95.01	
	19-24 months		\$58.13	\$74.62	\$91.13	
	13-18 months		\$56.19	\$71.72	\$87.24	
	7-12 months		\$54.25	\$68.81	\$83.36	
	0-6 months		\$48.21	\$59.76	\$71.29	
Apprentice Rates:						
	31-36 months		\$62.01	\$80.44	\$98.88	
	25-30 months		\$60.08	\$77.54	\$95.01	
	19-24 months		\$58.13	\$74.62	\$91.13	
	13-18 months		\$56.19	\$71.72	\$87.24	
	7-12 months		\$54.25	\$68.81	\$83.36	
	0-6 months		\$48.21	\$59.76	\$71.29	
Apprentice Rates:						
	31-36 months		\$62.01	\$80.44	\$98.88	
	25-30 months		\$60.08	\$77.54	\$95.01	
	19-24 months		\$58.13	\$74.62	\$91.13	
	13-18 months		\$56.19	\$71.72	\$87.24	
	7-12 months		\$54.25	\$68.81	\$83.36	
	0-6 months		\$48.21	\$59.76	\$71.29	

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Apprentice Rates:					
	31-36 months	\$62.01	\$80.44	\$98.88	
	25-30 months	\$60.08	\$77.54	\$95.01	
	19-24 months	\$58.13	\$74.62	\$91.13	
	13-18 months	\$56.19	\$71.72	\$87.24	
	7-12 months	\$54.25	\$68.81	\$83.36	
	0-6 months	\$48.21	\$59.76	\$71.29	
Operating Engineer - Marine Construction					
Diver/Wet Tender/Tender/Rov Pilot/Rov Tender	GLF D	\$52.81	\$78.57	\$104.32	H H H H H H D N
Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1	\$78.97	\$102.47	\$125.97	X X H H H H D Y
<u>Subdivision of county</u>	all Great Lakes, islands therein, & connecting & tributary waters				
Crane/Backhoe Operator, 70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2	\$77.47	\$100.22	\$122.97	X X H H H H D Y
<u>Subdivision of county</u>	All Great Lakes, islands therein, & connecting & tributary waters				
Friction, Lattice Boom or Crane License Certification30	GLF-2B	\$78.97	\$102.47	\$125.97	X X H H H H D Y
<u>Subdivision of county</u>	All Great Lakes, islands, therein, & connecting & tributary waters				
Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs or more), Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery	GLF-3	\$72.92	\$93.40	\$113.87	X X H H H H D Y
<u>Subdivision of county</u>	All Great Lakes, islands therein, & connecting & tributary waters				
Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator	GLF-4	\$66.72	\$84.10	\$101.47	X X H H H H D Y
<u>Subdivision of county</u>	All Great Lakes, islands therein, & connecting & tributary waters				
Operating Engineer Steel Work					
Extended boom forklift over 5,000 lb capacity, 1 Drum Hoist	EN-324-ef	\$69.61	\$88.88	\$108.15	H H D H H H D Y
Crane w/ 120' boom or longer	EN-324-SW120	\$74.14	\$95.24	\$116.33	H H D H H H D Y
Crane w/ 120' boom or longer w/ Oiler	EN-324-SW120-O	\$75.01	\$96.54	\$118.07	H H D H H H D Y
Crane w/ 140' boom or longer	EN-324-SW140	\$75.19	\$96.80	\$118.41	H H D H H H D Y

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Commercial Prevailing Wage Rates

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<u>Classification</u>			Straight	Time and	Double	Overtime Provision
Name	Description		Hourly	a Half	Time	
Crane w/ 140' boom or longer W/ Oiler		EN-324-SW140-O	\$76.19	\$98.24	\$120.28	H H D H H H D D Y
Boom & Jib 220' or longer		EN-324-SW220	\$76.46	\$98.62	\$120.78	H H D H H H D D Y
Crane w/ 220' boom or longer w/ Oiler		EN-324-SW220-O	\$74.01	\$95.11	\$116.20	H H D H H H D D Y
Boom & Jib 300' or longer		EN-324-SW300	\$76.96	\$99.34	\$121.72	H H D H H H D D Y
Crane w/ 300' boom or longer w/ Oiler		EN-324-SW300-O	\$77.96	\$100.78	\$123.59	H H D H H H D D Y
Boom & Jib 400' or longer		EN-324-SW400	\$78.46	\$101.49	\$124.52	H H D H H H D D Y
Crane w/ 400' boom or longer w/ Oiler		EN-324-SW400-O	\$79.46	\$102.93	\$126.39	H H D H H H D D Y
Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator		EN-324-SWCO	\$73.65	\$94.59	\$115.53	H H D H H H D D Y
Apprentice Rates:						
			0-999 hours	\$59.16	\$76.02	\$92.88
			1,000-1,999 hours	\$61.56	\$79.63	\$97.68
			2,000-2,999 hours	\$63.96	\$83.22	\$102.48
			3,000-3,999 hours	\$66.38	\$84.18	\$101.98
			4,000-4,999 hours	\$68.78	\$90.46	\$112.12
			5,000 hours	\$71.20	\$91.09	\$110.99
Crane Operator w/ Oiler		EN-324-SWCO-O	\$74.65	\$96.03	\$117.40	H H D H H H D D Y
Compressor or Welder Operator		EN-324-SWCW	\$37.03	\$49.48	\$61.92	H H D H H H D D Y
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe		EN-324-SWHO	\$73.01	\$93.67	\$114.33	H H D H H H D D Y
Oiler		EN-324-SWO	\$53.42	\$67.61	\$81.80	H H D H H H D D Y
Tower Crane & Derrick where work is 50' or more		EN-324-SWTD50	\$74.74	\$96.16	\$117.57	H H D H H H D D Y
Tower Crane & Derrick 50' or more w/ Oiler		EN-324-SWTD50-O	\$75.84	\$97.69	\$119.54	H H D H H H D D Y

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<u>Classification</u>			Straight	Time and	Double	Overtime Provision
Name	Description		Hourly	a Half	Time	
Operating Engineer Underground						
Class I Equipment	EN-324A1-UC1		\$66.39	\$84.19	\$101.98	X X X X X X X D Y
Apprentice Rates:						
	0-999 hours		\$52.76	\$67.08	\$81.41	
	1,000-1,999 hours		\$54.80	\$70.14	\$85.49	
	2,000-2,999 hours		\$56.85	\$73.22	\$89.59	
	3,000-3,999 hours		\$58.90	\$76.30	\$93.69	
	4,000-4,999 hours		\$60.94	\$79.35	\$97.77	
	5,000-5,999 hours		\$62.99	\$82.43	\$101.87	
Class I Equipment - Backfiller Tamper, Backhoe, Batch Plant Operator, Clamshell, Concrete Paver 2 drums or larger, Conveyor Loader Euclid type, Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, endloader, gradall, grader, hyd	EN-324A2-UC1		\$65.17	\$82.61	\$100.05	X X X X X X X D Y
Apprentice Rates:						
	0-999 hours		\$49.19	\$61.74	\$74.29	
	1,000-1,999 hours		\$50.99	\$64.44	\$77.89	
	2,000-2,999 hours		\$52.78	\$67.12	\$81.47	
	3,000-3,999 hours		\$54.58	\$69.82	\$85.07	
	4,000-4,999 hours		\$56.37	\$72.51	\$88.65	
	5,000-5,999 hours		\$58.16	\$75.19	\$92.23	
Class II Equipment - Boom Truck, Crusher, Hoist, Pump 6 inch discharge or larger, side boom tractor, Tractor (pneu-tired other than backhoe or front end loader), Trencher 8 ft. digging capacity and smaller, Vac Truck	EN-324A2-UC2		\$60.42	\$75.80	\$91.17	X X X X X X X D Y
Class III Equipment - Air Compressors 600 cfm or larger, Air Compressors 2 or more less than 600 dfm, Boom Truck non-swinging non-powered type boom, Concrete Breaker self-propelled or truck mounted, Concrete paver 1 drum 1/2 yd. or larger, Elevator other	EN-324A2-UC3		\$59.59	\$74.61	\$89.62	X X X X X X X D Y
Class IV Equipment - Boiler, Concrete Saw 40 hp or over, curing machine self propelled, end dumps, extend a boom forklift, farm tractor with attachment, finishing machine concrete, firemen, hydraulic pipe pushing machine, mulching equipment, oiler, pumps	EN-324A2-UC4		\$58.93	\$73.66	\$88.38	X X X X X X X D Y

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Name	Description		Hourly	a Half	Time	
Painter						
Painter	A 4-10s workweek allowed Monday-Thursday.	PT-845-BR	\$40.09	\$52.29	\$64.49	H H H H H H H D Y
Apprentice Rates:						
	1st level		\$27.89	\$33.99	\$40.09	
	2nd level		\$30.33	\$37.65	\$44.97	
	3rd level		\$33.99	\$43.14	\$52.29	
	4th level		\$37.65	\$48.63	\$59.61	
Pipe and Manhole Rehab						
	General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant	TM247	\$28.20	\$38.20	\$48.19	H H H H H H H H N
	Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment	TM247-2	\$32.70	\$44.95	\$57.19	H H H H H H H H N
	CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work	TM247-3	\$31.45	\$43.07	\$54.69	H H H H H H H H N
	Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated	TM247-4	\$33.20	\$45.70	\$58.19	H H H H H H H H N
	Combo Unit driver & Jetter-Vac Operator	TM247-5	\$33.20	\$45.70	\$58.19	H H H H H H H H N
	Pipe Bursting & Slip-lining Equipment Operator	TM247-6	\$34.20	\$47.20	\$60.19	H H H H H H H H N
Plasterer						
Plasterer		CE514-P-L	\$45.00	\$59.93	\$74.85	H H H H H H H D N
Apprentice Rates:						
	1st Year		\$34.55	\$44.25	\$53.95	
	2nd Year		\$37.54	\$48.73	\$59.93	
	3rd Year		\$40.52	\$53.21	\$65.89	

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<u>Classification</u>			Straight	Time and	Double	Overtime Provision
Name	Description		Hourly	a Half	Time	
Plumber & Pipefitter						
Plumber, Pipefitter and HVACTech	Four 10s allowed Monday thru Thursday. Friday not a makeup, considered OT, paid @ time & one-half.	PL-333-RI	\$63.77	\$95.66	\$127.54	H H H H H H D Y
Apprentice Rates:						
	1st 6 months		\$41.61	\$62.42	\$83.22	
	2nd 6 months		\$43.62	\$65.43	\$87.24	
	3rd 6 months		\$45.64	\$68.46	\$91.28	
	4th 6 months		\$47.65	\$71.48	\$95.30	
	5th 6 months		\$49.67	\$74.50	\$99.34	
	6th 6 months		\$51.68	\$77.52	\$103.36	
	7th 6 months		\$53.70	\$80.55	\$107.40	
	8th 6 months		\$55.71	\$83.56	\$111.42	
	9th 6 months		\$57.73	\$86.60	\$115.46	
	10th 6 months		\$59.74	\$89.61	\$119.48	
Roofer						
Commercial Roofer	4 consecutive tens allowed M-TH5 consecutive nine hour days M-F also allowed, time over forty hours per/week shall be at OT. Sat makeup day	RO-70-Z2	\$48.36	\$63.20	\$78.04	H X X X X X D Y x
Apprentice Rates:						
	1st Class		\$32.77	\$40.27	\$47.77	
	2nd Class		\$34.88	\$43.38	\$51.88	
	3rd Class		\$36.77	\$46.19	\$55.60	
	4th Class		\$38.90	\$49.36	\$59.81	
	5th Class		\$41.05	\$52.53	\$64.00	
	6th Class		\$43.15	\$55.62	\$68.09	
Sewer Relining						
Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV system.		SR-I	\$52.84	\$69.23	\$85.62	H H H H H H D N
Apprentice Rates:						
	0-6 months		\$41.58	\$54.66	\$67.74	
	6-12 months		\$45.31	\$60.26	\$75.20	

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<u>Classification</u>						
Name	Description		Straight Hourly	Time and a Half	Double Time	
					Overtime Provision	

Class II-Operator of hot water heaters and circulation system; water jettors; and vacuum and mechanical debris removal systems and those assisting.	SR-II		\$50.80	\$68.49	\$86.18	H H H H H H H D N
Sheet Metal Worker						
Sheet Metal Worker	4 10s allowed as consecutive days, M-Th or T-F	SHM-7-1	\$56.87	\$75.25	\$93.62	H H H H D D D D Y
Apprentice Rates:						
	First Year		\$30.01	\$39.20	\$48.39	
	Second Year		\$36.34	\$47.37	\$58.39	
	Third Year		\$45.84	\$58.70	\$71.56	
	Fourth Year		\$49.52	\$64.22	\$78.92	
Sprinkler Fitter						
Sprinkler Fitter		SP 669	\$60.34	\$78.45	\$96.56	H H H H H H H D Y
Apprentice Rates:						
	Class 1		\$24.57	\$32.72	\$40.87	
	Class 2		\$26.38	\$35.43	\$44.49	
	Class 3		\$39.14	\$49.10	\$59.06	
	Class 4		\$40.95	\$51.82	\$62.68	
	Class 5		\$43.01	\$54.78	\$66.55	
	Class 6		\$44.82	\$57.49	\$70.17	
	Class 7		\$46.63	\$60.21	\$73.79	
	Class 8		\$48.45	\$62.94	\$77.43	
	Class 9		\$50.26	\$65.65	\$81.05	
	Class 10		\$52.07	\$68.37	\$84.67	

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<u>Classification</u>						
Name	Description		Straight Hourly	Time and a Half	Double Time	Overtime Provision
<hr/>						
Tile, Terrazzo and Mosaic Finisher						
Tile, Terrazzo and Mosaic Finisher	BR2-TF		\$42.34	\$54.17	\$65.99	H H H H H H D N
Apprentice Rates:						
	1st Period		\$35.25	\$43.53	\$51.81	
	2nd Period		\$36.43	\$45.30	\$54.17	
	3rd Period		\$37.61	\$47.07	\$56.53	
	4th Period		\$38.79	\$48.84	\$58.89	
	5th Period		\$39.97	\$50.61	\$61.25	
	6th Period		\$41.16	\$52.39	\$63.63	
Tile, Terrazzo and Mosaic Setters						
Tile, Terrazzo and Mosaic Setters	BR2-Tile		\$48.48	\$62.11	\$75.73	H H H H H H D N
Apprentice Rates:						
	1st Period		\$40.31	\$49.85	\$59.39	
	2nd Period		\$41.67	\$51.89	\$62.11	
	3rd Period		\$43.03	\$53.93	\$64.83	
	4th Period		\$44.39	\$55.97	\$67.55	
	5th Period		\$45.75	\$58.01	\$70.27	
	6th Period		\$47.12	\$60.07	\$73.01	
Tower Technician						
	IBEW 876 & IBEW 17 - Roadway		\$67.89	\$98.24	\$128.58	H H H H H H D Y
Truck Driver						
of all trucks of 8 cubic yd capacity or over	TM-RB2		\$44.10	\$48.81	\$49.80	H H H H H H H Y
of all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)	TM-RB2A		\$44.00	\$48.66	\$49.60	H H H H H H H Y
on euclid type equipment	TM-RB2B		\$44.25	\$49.04		H H H H H H H Y

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<u>Classification</u>			Straight	Time and	Double	
Name	Description		Hourly	a Half	Time	Overtime Provision
<hr/>						
Truck Driver / Groundman (less than a yr)						
		IBEW 876 & IBEW 17 - Teledata	\$30.78	\$41.29	\$51.79	H H H X X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
Truck Driver / Groundman (over 1 yr)						
		IBEW 876 & IBEW 17 - Teledata	\$37.40	\$50.84	\$64.27	H H H X X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	
TV Terminator - Tech II						
		IBEW 876 & IBEW 17 - Teledata	\$38.78	\$52.83	\$66.87	H H H X X X X D Y
Apprentice Rates:						
	Lineman (6th - 6 months)		\$35.61	\$49.90	\$64.18	
	Lineman (5th - 6 months)		\$33.06	\$46.07	\$59.08	
	Lineman (4th - 6 months)		\$30.53	\$42.27	\$54.02	
	Lineman (3rd - 6 months)		\$27.99	\$38.47	\$48.94	
	Lineman (2nd - 6 months)		\$25.45	\$34.66	\$43.86	
	Lineman (1st - 6 months)		\$22.91	\$30.85	\$38.78	

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STATE OF MICHIGAN

Wage and Hour Division
PO Box 30476
Lansing, MI 48909
517-284-7800

Informational Sheet: Prevailing Wages on State Funded Projects

REQUIREMENTS

Effective February 13, 2024

The purpose of establishing prevailing rates is to provide minimum rates of pay that must be paid to workers on construction projects that are financed or financially supported by the state. Prevailing rates compiled from the rates contained in collectively bargained agreements which cover the locations of the state projects. While the prevailing wage rates are compiled through surveys of collectively bargained agreements, a collective bargaining agreement is not required for contractors to be on or be awarded state projects. The prevailing rate schedule provides an hourly rate which includes wage and fringe benefit totals for designated construction mechanic classifications. The overtime rates also include wage and fringe benefit totals. Please pay special attention to the overtime and premium pay requirements. The prevailing wage is satisfied when wages plus fringe benefits are equal to or greater than the required rate.

State of Michigan responsibilities:

- The department establishes the prevailing rate for each classification of construction mechanic requested by the contracting agents prior to contracts being let out for bid on a state project.

DTMB responsibilities

- If a contract is not awarded or construction does not start within 90 days of the date of the issuance of rates, a re-determination of rates must be requested by the contracting agents.
- Rates for classifications needed but not provided on the Prevailing Rate Schedule, **must** be obtained **prior** to contracts being let out for bid on a state project.

Contractor responsibilities:

- Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing rates prescribed in a contract.
- Every contractor and subcontractor shall keep an accurate record showing the name and occupation of and the actual wages and benefits paid to each construction mechanic. This record shall be available for reasonable inspection by DTMB or the department.
- Each contractor or subcontractor is liable for the payment of the prevailing rate to its employees.
- The prime contractor is responsible for advising all subcontractors of the requirement to pay the prevailing rate prior to commencement of work.
- A construction mechanic *shall only* be paid the apprentice rate if registered with the United States Department of Labor, Bureau of Apprenticeship and Training and the rate is included in the contract.

Enforcement:

A person who has information of an alleged prevailing wage violation on a prevailing wage project may file a complaint with the State of Michigan. The department will investigate and attempt to resolve the complaint informally. During the course of an investigation, if the requested records and posting certification are not made available in compliance with contractual requirements, the Contracting Agent may consider the Contractor to be in material breach of the contract and may terminate the contract for cause at the sole discretion. There are also civil penalties for failure to be in compliance with Act 10. View the entire text of Act 10 of 2023 at michigan.gov/wagehour.



STATE OF MICHIGAN
Informational Sheet: Prevailing Wages on State Projects

General Information Regarding Fringe Benefits

Certain fringe benefits **may** be credited toward the payment of the Prevailing Wage Rate:

- If a fringe benefit is paid directly to a construction mechanic
- If a fringe benefit contribution or payment is made on behalf of a construction mechanic
- If a fringe benefit, which may be provided to a construction mechanic, is pursuant to a written contract or policy
- If a fringe benefit is paid into a fund, for a construction mechanic

When a fringe benefit is not paid by an hourly rate, the hourly credit will be calculated based on the annual value of the fringe benefit divided by 2080 hours per year (52 weeks @ 40 hours per week).

The following is an example of the types of fringe benefits allowed and how an hourly credit is calculated:

Vacation	40 hours X \$14.00 per hour = \$560/2080 =	\$0.27
Dental insurance	\$31.07 monthly premium X 12 mos. = \$372.84 /2080 =	\$.18
Vision insurance	\$5.38 monthly premium X 12 mos. = \$64.56/2080 =	\$.03
Health insurance	\$230.00 monthly premium X 12 mos. = \$2,760.00/2080 =	\$1.33
Life insurance	\$27.04 monthly premium X 12 mos. = \$324.48/2080 =	\$.16
Tuition	\$500.00 annual cost/2080 =	\$.24
Bonus	4 quarterly bonus/year x \$250 = \$1000.00/2080 =	\$.48
401k Employer Contribution	\$2000.00 total annual contribution/2080 =	\$.96
Total Hourly Credit		\$3.65

Other examples of the types of fringe benefits allowed:

- Sick pay
- Holiday pay
- Accidental Death & Dismemberment insurance premiums

The following are examples of items that **will not** be credited toward the payment of the Prevailing Wage Rate

- Legally required payments, such as:
 - Unemployment Insurance payments
 - Workers' Compensation Insurance payments
 - FICA (Social Security contributions, Medicare contributions)
- Reimbursable expenses, such as:
 - Clothing allowance or reimbursement
 - Uniform allowance or reimbursement
 - Gas allowance or reimbursement
 - Travel time or payment
 - Meals or lodging allowance or reimbursement
 - Per diem allowance or payment
- Other payments to or on behalf of a construction mechanic that are not wages or fringe benefits, such as:
 - Industry advancement funds
 - Financial or material loans



STATE OF MICHIGAN
Informational Sheet: Prevailing Wages on State Projects

OVERTIME PROVISIONS for MICHIGAN PREVAILING WAGE RATE COMMERCIAL SCHEDULE

- Overtime is represented as a nine character code. Each character represents a certain period of time after the first 8 hours Monday thru Friday.

	Monday thru Friday	Saturday	Sunday & Holidays	Four 10s
First 8 Hours		4		
9th Hour	1	5	8	9
10th Hour	2	6		
Over 10 hours	3	7		

Overtime for Monday thru Friday after 8 hours:

the 1st character is for time worked in the 9th hour (8.1 - 9 hours)
the 2nd character is for time worked in the 10th hour (9.1 - 10 hours)
the 3rd character is for time worked beyond the 10th hour (10.1 and beyond)

Overtime on Saturday:

the 4th character is for time worked in the first 8 hours on Saturday (0 - 8 hours)
the 5th character is for time worked in the 9th hour on Saturday (8.1 - 9 hours)
the 6th character is for time worked in the 10th hour (9.1 - 10 hours)
the 7th character is for time worked beyond the 10th hour (10.01 and beyond)

Overtime on Sundays & Holidays

The 8th character is for time worked on Sunday or on a holiday

Four Ten Hour Days

The 9th character indicates if an optional 4-day 10-hour per day workweek can be worked **between Monday and Friday without paying overtime after 8 hours worked, unless otherwise noted in the rate schedule. To utilize a 4 ten workweek, notice is required from the employer to employee prior to the start of work on the project.**

- Overtime Indicators Used in the Overtime Provision:

H - means TIME AND ONE-HALF due
X - means TIME AND ONE-HALF due after 40 HOURS worked
D - means DOUBLE PAY due
Y - means YES an optional 4-day 10-hour per day workweek can be worked without paying overtime after 8 hours worked
N - means NO an optional 4-day 10-hour per day workweek *cannot* be worked without paying overtime after 8 hours worked

- EXAMPLES:

HHHHHHHDN - This example shows that the 1½ rate must be used for time worked after 8 hours Monday thru Friday (characters 1 - 3); for all hours worked on Saturday, 1½ rate is due (characters 4 - 7). Work done on Sundays or holidays must be paid double time (character 8). The N (character 9) indicates that 4 ten-hour days is not an acceptable workweek at regular pay.

XXXHHHDY - This example shows that the 1½ rate must be used for time worked after 40 hours are worked Monday thru Friday (characters 1-3); for hours worked on Saturday, 1½ rate is due (characters 4 – 7). Work done on Sundays or holidays must be paid double time (character 8). The Y (character 9) indicates that 4 ten-hour days is an acceptable alternative workweek.



STATE OF MICHIGAN
Informational Sheet: Prevailing Wages on State Projects

ENGINEERS - CLASSES OF EQUIPMENT LIST

UNDERGROUND ENGINEERS

CLASS I

Backfiller Tamper, Backhoe, Batch Plant Operator, Clam-Shell, Concrete Paver (2 drums or larger), Conveyor Loader (Euclid type), Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, End Loader, Gradall (and similar type machine), Grader, Power Shovel, Roller (asphalt), Scraper (self propelled or tractor drawn), Side Broom Tractor (type D-4 or larger), Slope Paver, Trencher (over 8' digging capacity), Well Drilling Rig, Mechanic, Slip Form Paver, Hydro Excavator.

CLASS II

Boom Truck (power swing type boom), Crusher, Hoist, Pump (1 or more 6" discharge or larger gas or diesel powered by generator of 300 amps 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' digging capacity and smaller), Vac Truck.

CLASS III

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, ½ yard or larger), Elevator (other than passenger), Maintenance Man, Mechanic Helper, Pump (2 or more 4" up to 6" discharge, gas or diesel powered, excluding submersible pump), Pumpcrete Machine (and similar equipment), Wagon Drill Machine, Welding Machine or Generator (2 or more 300 amp or larger, gas or diesel powered).

CLASS IV

Boiler, Concrete Saw (40HP or over), Curing Machine (self-propelled), Farm Tractor (w/attachment), Finishing Machine (concrete), Firemen, Hydraulic Pipe Pushing Machine, Mulching Equipment, Oiler (2 or more up to 4", exclude submersible), Pumps (2 or more up to 4" discharge if used 3 hrs or more a day-gas or diesel powered, excluding submersible pumps), Roller (other than asphalt), Stump Remover, Vibrating Compaction Equipment (6' wide or over), Trencher (service) Sweeper (Wayne type and similar equipment), Water Wagon, Extend-a-Boom Forklift.

HAZARDOUS WASTE ABATEMENT ENGINEERS

CLASS I

Backhoe, Batch Plant Operator, Clamshell, Concrete Breaker when attached to hoe, Concrete Cleaning Decontamination Machine Operator, Concrete Pump, Concrete Paver, Crusher, Dozer, Elevating Grader, Endloader, Farm Tractor (90 h.p. and higher), Gradall, Grader, Heavy Equipment Robotics Operator, Hydro Excavator, Loader, Pug Mill, Pumpcrete Machines, Pump Trucks, Roller, Scraper (self-propelled or tractor drawn), Side Boom Tractor, Slip Form Paver, Slope Paver, Trencher, Ultra High Pressure Waterjet Cutting Tool System Operator, Vactors, Vacuum Blasting Machine Operator, Vertical Lifting Hoist, Vibrating Compaction Equipment (self-propelled), and Well Drilling Rig.

CLASS II

Air Compressor, Concrete Breaker when not attached to hoe, Elevator, End Dumps, Equipment Decontamination Operator, Farm Tractor (less than 90 h.p.), Forklift, Generator, Heater, Mulcher, Pigs (Portable Reagent Storage Tanks), Power Screens, Pumps (water), Stationary Compressed Air Plant, Sweeper, Water Wagon and Welding Machine.



STATE OF MICHIGAN
Informational Sheet: Prevailing Wages on State Projects

CARPENTER CRAFT JURISDICTION

Michigan recognizes the Carpenters for any and all work related to weatherization that has historically been the work of the Carpenter. This work shall include, but not be limited to: all work defined under the Federal Weatherization Assistance Program.

The jurisdiction of Carpenters, as to all work that has historically and traditionally been performed consisting of the milling, fashioning, joining, assembling, erecting, fastening or dismantling of all materials of wood, plastic, metal, fiber, cork, or composition and all other substitute materials, as well as the handling, cleaning, erecting, installing and dismantling of all machinery, equipment and all materials used by Carpenters.

The jurisdiction, therefore, extends over the following divisions and subdivisions of the trade: Carpenters and Joiners, Millwrights, Pile Drivers, Bridge, Dock and Wharf Carpenters, Underpinners, Timbermen, and Core-drillers, Shipwrights, Boat Builders, Ship-hand, Stair-Builders, Millmen, Wood and Resilient Floor Decorators, Floor Finishers, Carpet-layers, Shinglers, Siders, Insulators, Acoustic and Drywall Applicators, Sharers and House Movers, Loggers, Lumber and Sawmill Workers, Reed and Rattan Workers, Shingle Weavers, Casket and Coffin Makers, Railroad Carpenters and Car Builders, regardless of material used and all those engaged in the operation of woodworking or other machinery required in fashioning, milling or manufacturing of products used in the trade, and the handling, erecting and installing materials on any of the above divisions or sub-divisions, burning, welding and rigging incidental to the trade. When the term "Carpenter and Joiner" is used, it shall mean all the subdivisions of the trade. The trade autonomy of Carpenters therefore extends over the divisions and subdivisions of the trade, which are set forth as follows:

- (a) The framing, erecting and prefabrication of roofs, partitions, floors and other parts of buildings of wood, metal, plastic or other substitutes; application of all metal flashing used for hips, valleys and chimneys; the erection of Stran Steel section or its equal. The building and setting of all forms and centers for brick and masonry. The fabrication and erection of all forms for concrete and decking, the dismantling of same (as per International Agreement) when they are to be re-used on the job or stored for re-use. The cutting and handling of all falsework for fireproofing and slabs. Where power is used in the setting or dismantling of forms, all signaling and handling shall be done by carpenters. The setting of templates for anchor bolts for structural members and for machinery, and the placing, leveling and bracing of these bolts. All framing in connection with the setting or metal columns. The setting of all bulkheads, footing forms and the setting of and fabrication of, screeds and stakes for concrete and mastic floors where the screed is notched or fitted, or made up of more than one member. The making of forms for concrete block, bulkheads, figures, posts, rails, balusters and ornaments, etc.
- (b) The handling and erecting of rough material and drywall, the handling, assembly, setting and leveling of all fixtures, display cases, all furniture such as tables, chairs, desks, coat racks, etc., all de-mountable or moveable partitions such as Von wall, E Wall, Steel Case, Herman Miller, Haworth, American Seating, Westinghouse, Lazy Boy, rosewood, etc. All rebuilding, remodeling and setting up of all kinds of partitions, finished lumber, metal and plastic trim to be erected by Carpenters shall be handled from the truck or vehicle delivering same to the job by Carpenters.



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CARPENTER CRAFT JURISDICTION

- (c) The building and moving of all scaffolding runways and staging where carpenters' tools are used, the building from the ground up of all scaffolds over fourteen (14) feet in height including metal and specially designed scaffolding. The building and construction of all hoists and derricks made of wood; the making of mortar boards, boxes, trestles, all shoring, razing and moving of buildings. Lift type trucks are to be considered a tool of the trade. Metal siding and metal roofing fall within the scope of jurisdiction for the carpenters.
- (d) The cutting or framing and fireproofing of the openings for pipes, conduits, ducts, etc., where they pass through floors, partitions, walls, roofs or fixtures composed in whole or in part of wood. The laying out of making and installation of all inserts and sleeves for pipes, ducts, etc., where carpenters' tools and knowledge are required. The making and installing of all wooden meter boards, crippling and backing for fixtures. The welding of studs and other fastenings to receive material being applied by carpenters.
- (e) The installation of all grounds, furring or stripping, ceilings and sidewalks, application of all types of shingling and siding, etc.
- (f) The installation of all interior and exterior trim or finish of wood, aluminum, kalamein, hollow or extruded metal, plastic, doors, transoms, thresholds, mullions and windows. The setting of jambs, bucks, window frames of wood or metal where braces or wedges are used. The installation of all wood, metal or other substitutes of casing, molding, chair rail, wainscoting, china closets, base of mop boards, wardrobes, metal partitions as per National Decisions or specific agreements, etc. The complete laying out, fabrication and erection of stairs. The making and erecting of all fixtures, cabinets, shelving, racks, louvers, etc. The mortising and application of all hardware in connection with our work. The sanding and refinishing of all wood, cork or composition floors to be sanded or scraped, filled, sized and buffed, either by hand or power machines. The assembling and setting of all seats in theaters, halls, churches, schools, auditorium, grandstands and other buildings. All bowling alley work.
- (g) The manufacture, fabrication and installation of all screens, storm sash, storm doors and garage doors; the installation of wood, canvas, plastic or metal awnings or eye shades, door shelters, jalousies, etc. The laying of wood, wood block and wood composition in floors.
- (h) The installation of all materials used in drywall construction, such as plasterboard, all types of asbestos boards, transite and other composition board. The application of all material which serves as base for acoustic tile, except plaster. All acoustical applications as per National Agreement or specific agreement.
- (i) The building and dismantling of all barricades, hand rails, guard rails, partitions and temporary partitions. The erection and dismantling of all temporary housing on construction projects.
- (j) The installation of rock wool, cork and other insulation material used for sound or weatherproofing. The removal of caulking and placing of staff bead and brick mold and all Oakum caulking, substitutes, etc., and all caulking in connection with carpentry work.
- (k) The installation of all chalk boards/marker boards.



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CARPENTER CRAFT JURISDICTION

- (l) The operation of all hand operated winches used to raise wooden structures.
- (m) The erection of porcelain enameled panels and siding.
- (n) The unloading and distribution of all furnished, prefabricated and built-up sections such as door bucks, window frames, cupboards, cabinets, store fixtures, counters and show cases or comparably finished or prefabricated materials, to the job sites or points of installation as used in the construction, alteration and remodeling industry.
- (o) The handling of doors, metal, wood or composite, partitions and other finished bulk materials used for trim from the point of delivery.
- (p) All processing of these materials and handling after processing.
- (q) The making up of panels and fitting them into walls, all bracing and securing, all removal of panels from the casting including all braces, walers, hairpins, etc.
- (r) The handling and setting of all metal pans and sections from the stock piles of reasonable distance as required by job needs shall be performed by carpenters. The stripping of such metal pans, panels or sections is to be performed by carpenters.
- (s) The sharpening of all carpenter hand or power tools, or those used by carpenters.
- (t) The layout, fabrication, assembling of and erection and dismantling of all displays made of wood, metal, plastic, composition board or any substitute material; the covering of same with any type of material, the crating and un-crating, the handling from the point of unloading and back to the point of loading of all displays and other materials or components.
- (u) The same shall apply to all other necessary component parts used for display purposes such as turntables, platforms, identification towers and fixtures, regardless of how constructed, assembled or erected or dismantled.
- (v) The make-up, handling, cutting and sewing of all materials used in buntings, flags, banners, decorative paper, fabrics and similar materials used in the display decorative industry for draperies and back drops. The decorative framing of trucks, trailers and autos used as floats or moving displays. The slatting of walls to hand fabrics and other decorative materials, drilling of all holes to accommodate such installations. Setting up and removal of booths constructed of steel or aluminum tubing as stanchions, railings, etc., handling and placing of furniture, appliances, etc., which are being used to complete the booth at the request of the exhibitor. Fabricating and application of leather, plastic and other like materials used for covering of booths. The handling of all materials, fabricating of same. The loading and unloading, erecting and assembling at the exhibit of show area, also in or out of storage when used in booth decorations.



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CARPENTER CRAFT JURISDICTION

- (w) A display shall be construed as any exhibit or medium of advertising, open to private or public showing, which is constructed of wood, metal, plastic or any other substitute to accomplish the objectives of advertising or displaying.
- (x) Handling, fitting, draping, measuring and installation of fixtures and other hardwares for draperies, all manner of making, measuring, repairing, sizing, hanging and installation of necessary fixtures and hardware for shades and Venetian blinds.
- (y) Work consisting of cutting and/or forming of all materials in preparation for installing of floors, walls and ceilings; the installation of all resilient floor and base; wall and ceiling materials to include cork, linoleum, prefabricated, laminated, rubber, asphalt, vinyl, metal, plastic, seamless floors and all other similar materials in sheet, interlocking liquid or tile form; the installation of all artificial turf, the installation, cutting and/or fitting of carpets; installation of padding, matting, linen crash and all preformed resilient floor coverings; the fitting of all devices for the attachment of carpet and other floor, wall and ceiling coverings; track sewing of carpets, drilling of holes for sockets and pins, putting in dowels and slats; and all metal trimmings used; the installation of all underlayments, sealants in preparation of floors, walls and ceilings, the unloading and handling of all materials to be installed and the removal of all materials in preparing floors when contracted for by the employer, shall be done only by employees covered under this Agreement.
- (z) The installation of all sink-tops and cabinets, to include all metal trim and covering for same. All cork, linoleum, congo-wall, linewall, veos tile, plexiglass, vinawall tile, composition tile, plastic tile, aluminum tile and rubber in sheets or tile form and the application thereof. All bolta-wall and bolta-wall tile and similar products.
- (aa) The handling and placing of all pictures and frames and the assembly of bed frames and accessories. The hanging and placing of all signage.
- (bb) The installation of all framework partitions and trim materials for toilets and bathrooms made of wood, metal, plastics or composition materials; fastening of all wooden, plastic or composition cleats to iron or any other material for accessories.
- (cc) The erection of cooling towers and tanks.
- (dd) The setting, lining, leveling and bracing of all embedded plates, rails and angles. The setting of all stay in place forms.
- (ee) Environmental: Clean room, any type of environmental chamber, walk in refrigerated coolers and all refrigerated rooms or buildings.



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CARPENTER CRAFT JURISDICTION

PILE DRIVING AND CAISSON DRILLING

(ff) All unloading, handling, signaling and driving of piles, whether wood, steel, pipe, beam pile, composite, concrete or molded in place, wood and steel sheeting, cofferdam work, trestle work, dock work, floating derricks, caisson work, foundation work, bridge work, whether old or new, crib work, pipe line work and submarine work. Cutting of all wood, steel or concrete pile, whether by machine or hand; welding and cutting, peeling, and heading of all wood pile, steel sheeting and wood sheeting. The erecting and dismantling of all pile driving rigs, also derricks whether on land or water; also the moving, shoring and underpinning of all buildings. The loading and unloading of all derricks, cranes and pile driving materials. The tending, maintenance and operation of all valves pertaining to the operation of driving of pile. All diving and tending essential to the completion of jurisdictional claims.

All work done in the established yards of the Company and all work not enumerated above, shall be handled and manned as the Employer decides.

The pile driver will unload all material shipped in by rail from the point that the rail car is spotted.

All cleaning and preparation of all piling prior to driving.

The welding and attachment of all boot plates, pile points, splice plates, connectors, rock crosses, driving crosses, driving rigs, point reinforcements and overboots.

The construction, reconstruction, repair, alteration, demolition and partial or complete removal of all marine work including, but not limited to, docks, piers, wharves, quays, jetties, cribs, causeways, breakwaters, lighthouses and permanent buoys, etc. (mixing and placing of concrete excepted).

The driving and pulling of all wood, steel and concrete foundation piles and sheet piling.

The heading, pointing, splicing, cutting and welding of all piles.

The placing of all wales, bolts, studs, lagging, rods and washers including the cutting, drilling, boring or breaking of all holes or openings thereof.

The removal of all materials and/or obstructions of any nature (rip-rap included) that retard or interfere with the driving of piles or with the placing of wales, bolts and rods.



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CARPENTER CRAFT JURISDICTION

This is to be subject to the discretion of the contractor who may choose to use blasting specialists or other demolition specialists.

The handling on the job of all materials used in the work.

The manning of all floating equipment (towing equipment excepted) engaged in the work enumerated, including deck engines, except machinery manned by Operating Engineers.

The placing of all rip-rap, fill stone, bedding stone, cover stone and concrete blocks in connection with marine construction. Work normally performed by Employers, such as soil tests, shoring, underpinning of buildings, cribbing, driving of sheet piling, marine divers, tenders, underwater construction workers and similar operations shall continue to be included in the jurisdiction of this Agreement.

All burning, cutting, welding and fabrication of pipe, H-beams, sheet pile (metal or wood), done on the job site or in the yard of the Employer shall be done by pile drivers. The driving of bearing piles, sheet piling with heavy equipment, caissons, pile caps, auger drilling and boring, the setting up for load testing for any type of piling, all layout and spotting for piling, caisson and boring work, all earth retention, ditch boarding, installing tiebacks.

ASBESTOS ABATEMENT CARPENTERS

(gg) All erection and maintenance of barriers and partitions used in the removing of asbestos or any abatement work. The abatement of any materials previously installed by the carpenter such as transite, ceiling and floor tiles. All operating and maintaining of current equipment used in any abatement work.



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ELECTRICIAN – SOUND AND COMMUNICATION / DATA/ VOICE JURISDICTION

The installation, testing, service and maintenance, of systems which utilize the transmission and/or transference of voice, sound, vision or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, CATV and CCTV, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school intercom and sound, burglar alarms, low voltage fire alarm systems, low voltage master clock systems, distributed antenna systems (DAS), IP data networks, and all surface-mounted (non-power) telecommunications wiremold. Shall additionally include the installation of all raceway systems of unlimited length in telecommunications rooms, entrance facilities, equipment rooms, and similar areas. Energy management systems. Security systems; perimeter, vibration, card access, access control and sonar/infrared monitoring equipment. Communications systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; SCADA (Supervisory Control and Data Acquisition), PCM (Pulse Code Modulation), Digital Data Systems, Broadband and Baseband and Carriers, POS (Point of Sale systems), VSAT Data Systems, RF and Remote Control Systems, Fiber Optic Data Systems and Voice and Data Infrastructure and Backbone.

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY OF WORK

A. Work Under This Contract

1. This Contract encompasses the furnishing of all labor, materials, services, equipment, and insurance to complete the following as shown on drawing and specified herein:
2. Any premium time necessary to complete this project as scheduled, shall be included in the Base Bid.
3. All pertinent requirements of the Invitation to Bidders, Instructions to Bidders, and General Conditions shall form a part of these specifications and the Contractor shall consult them in detail for instructions pertaining to the work in the following divisions.

B. Work Performed Under Separate Contracts

1. The following will be provided by the Owner or by others under separate contracts:
 - a. Tie-back, pruning, removal and/or transplanting of existing plantings
 - b. Topsoil, final grading, fertilizing, mulching, and seeding of construction site.
 - c. As-built Site Survey
 - 1) The Contractor shall notify the Project Representative when new underground utility installation starts, or when existing utilities are exposed, to allow the Project Representative to coordinate with IPF Facility Information Services for documentation.
 - 2) The Project Representative shall coordinate with IPF Facility Information Services for an As-built Survey upon completion of exterior improvements and utilities.
2. Coordinate pickup of the following site-related, owner-provided materials from Beaumont Supply at 4080 Beaumont Rd., Lansing, MI 48910, phone: (517) 643-6253 (Hours of operation are May 1st – October 31st 6am-4pm Monday – Friday excluding university holidays. November 1st – up until the Thanksgiving Holiday 6am-230pm Monday -Friday and following Thanksgiving Holiday – April 30th 5am-130pm to accommodate for snow) Extended hours are available with a minimum 24-hour notice. Contractor is responsible for transporting materials to the jobsite.

- a. Soil Erosion and Sedimentation Control (SESC) materials: (removed and retained by Owner at end of permit)
 - 1) Erosion eels
- C. Pre-Ordered Products
 - 1. The Contractor shall assume full responsibility for any/all pre-ordered products after their arrival at MSU. This includes transportation, handling, storage, start-up, warranty services, and installation in accordance with the General Conditions unless otherwise specified.
- D. Work Sequence

The Substantial construction completion date for this project is as specified in the Advertisement for Bids.

1.2 WORK RESTRICTIONS

- A. Access Routes
 - 1. All materials and equipment (new and demolition), including mechanical and electrical, shall be transported through a building via the designated building receiving area (usually the loading dock), and through main corridor to rooms or areas. Alternate routes may be used only with the approval of the Project Representative.
- B. Owner Occupancy
 - 1. Unless otherwise stated, University buildings will continue to function and remain occupied during the construction process.
 - 2. On every project involving new construction, additions or alterations to existing facilities, M.S.U. requires the ability of a person with physical disabilities to independently get to, enter, and use the site, facility, building or element. In no way shall a site, building or facility be restricted to individuals with disabilities, due to alterations or construction, which would normally be made accessible to individuals with no disabilities. Alternate routes for all new and alterations of existing facilities shall incorporate the latest federal, state and local barrier free standards and include temporary access accommodations for individuals with disabilities.
- C. Use of Site
 - 1. There shall be a pre-construction site walk-thru with the Project Representative to clarify and discuss limitations and concerns prior to construction.
 - 2. Construction fence
 - a. A construction fence shall be placed around the construction site as shown on the drawings and as approved by the Project Representative.

- b. The Contractor is responsible for installing and maintaining the construction fence and gates to restrict access by the public to the area under construction. The Contractor may be required to reposition the fence and/or gate(s) during the course of construction to accommodate the construction activities in order to minimize the inconvenience to the public.
- c. The fence shall be constructed of chain link fabric with a minimum height of 6', with metal or wood posts at not to exceed 8' spacing. Fence fabric shall be supported by either a top bar or tension cable. Gates (where specified) will be constructed of a suitable metal frame with chain link fabric with a height of not less than 6'. This fence shall be installed before work commences.
- d. Metal signs reading "Construction Area - Keep Out" must be attached to the fence at not more than 20' spacing and to the gate(s).
- e. Where any fence crosses an existing walk, drive, or road, a lighted MDOT Type 1 barricade or larger shall be attached to the inside of the fence facing on-coming pedestrian and/or vehicular traffic.
- f. No construction work, parking, storage of materials or related activities shall occur beyond this boundary fencing.

D. Other

- 1. Construction cannot commence until MSU receives the Joint Permit from EGLE, which is currently being reviewed. MSU will obtain any/all permits.
- 2. Construction cannot commence until MSU receives a SESC permit from the City of East Lansing. This will be obtained immediately after a successful bidder has been determined and can be listed on the application as the entity responsible for maintaining the SESC measures. MSU will obtain any/all permits.
- 2. A freshwater mussel survey and relocation has been completed and submitted to MDNR for review. Work cannot commence until MSU receives sign-off from the MDNR regarding the freshwater mussel survey and relocation.
- 3. Only one abutment can be worked on at a time due to EGLE requirements to limit the amount of stream width that is occupied during construction.
- 4. No work can occur on the project site during home football Fridays or Saturdays.

PART 2 - PRODUCTS
Not Used

PART 3 - EXECUTION
Not Used

END OF SECTION

SECTION 012000 - PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 PROPOSAL QUOTATION REQUIREMENTS

- A. Projects to be bid will be quoted as required by the front-end documents on the specification.
- B. This is a lump sum bid, general contractor project. Any references to pay items in the Special Provisions are just for contractor convenience/understanding. Any necessary contractor materials testing per the Special Provisions shall be included in the lump sum bid.

1.4 CONTRACT BREAKDOWNS

- A. Within twenty-four (24) hours after receipt of Bids, the apparent Low Bidder shall submit to the Architect/Engineer, the following:
 - 1. A Schedule of Values (SOV), indicating the cost of each specified Division and/or Major Subdivision of the Bid. The approved SOV will be used as the basis for estimating partial payments to the Contractor when allowed per the front-end documents.
 - a. All contracts shall assign a minimum of 1% of the contract value for final completion and project closeout. This item must be identified as a separate line item labeled *Closeout* on the SOV. Exceptions must be approved by the Construction Superintendent.
 - b. Due to changes to Generally Accepted Accounting Practices, environmental remediation must be separately reported in the Owner's financial statements. Accordingly, all contracts shall carry remediation costs in separate lines clearly marked *remediation*. These titles should not be used in other line descriptions.
 - 2. Identify a Subcontractor for each Division and/or Major Subdivision for the Owner's approval. Once approved, no Subcontractors will be changed without the Owner's written consent. The List of Subcontractors will have indicated the MBE/WBE Contractors and their percentages of the Contract Price as specified in the "Cover Letter" or "Advertisement for Bids" of this project.
 - 3. A list of representatives authorized to perform Unifier functions on behalf of the Contractor using the [Unifier System - Vendor Information](http://ipf.msu.edu/index.cfm/capital-project-procedures/documents/unifier-system-vendor-information/) available at <http://ipf.msu.edu/index.cfm/capital-project-procedures/documents/unifier-system-vendor-information/>.

1.5 CONTRACT MODIFICATION PROCEDURES

A. Change Management Quotation Requirements

1. Quotations for changes in the Contract will be submitted via Unifier when requested, as outlined in Section 012000-1.5.B, Change Management Procedures. This section will not prohibit the Project Representative from requesting and receiving verbal quotations. It is intended that mutual cooperation will keep any changes to an absolute minimum. The Contractor shall promptly document any verbal request by initiating a Change Management or Change Request record in Unifier. The Contractor shall not engage in added work without proper authorization by the Owner. Any added work the Contractor engages in without authorization shall be at the Contractor's risk. In no event shall the failure of the Construction Representative to initiate a change constitute authorization for the Contractor to proceed with work.
2. The [Change Order Quotation Format Form](http://procedures.ipf.msu.edu/index.cfm/capital-project-delivery-procedures/) is available on the MSU [Capital Project Delivery Procedures](http://procedures.ipf.msu.edu/index.cfm/capital-project-delivery-procedures/) website (<http://procedures.ipf.msu.edu/index.cfm/capital-project-delivery-procedures/>). This Form shall be forwarded to each required Subcontractor, and is recommended as an outline of the information required by this Contract.
3. The Contractor will submit quotations through Unifier, including detailed breakdowns. Upon request, originals of any documents shall be provided to the Owner. The Project Representative will receive quotations from the Contractor only. Subcontractors will submit quotations through the Contractor. All Contractors will submit quotations with information and back-up data as indicated on the quotation form.

B. Change Management Procedures

1. Change Orders shall be issued as required to alter the Contract, (i.e. change the work scope, materials, dates, etc.), in accordance with the General Conditions of the Contract, and the following procedure:
 - a. The Contractor or the Project Representative shall initiate a Change Request in the Unifier Project Management System. Each Change Request will consist of only one change item of work.
 - b. Items brought up by the Department or Contractor shall be reviewed first with the Project Representative.
 - c. The Architect/Engineer will review the Change Request, and with the Project Representative, will determine the need for an item to be changed in the Contract by Change Order.
 - c. If the Change Request is approved, the Contractor will receive a request through Unifier to proceed with the work and/or provide pricing, as applicable. Provide a quotation for the item requiring change, unless the Change Request is submitted as a lump sum with a quotation attached
 - d. The Contractor will submit a quotation for each Change Request item in accordance

with the applicable Unifier business process. Overhead and profit shall be applied consistent with the General Conditions.

- e. The Project Representative and Architect/Engineer will evaluate the quotations and accept or reject each item quoted. A Change Order will be created within the Unifier system and will be issued through the MSU Purchasing Department to change the contract amount if required.
- g. The Construction Supervisor or Director of Planning, Design and Construction has approval authority for the Contract Change.

1.6 CONTRACT PAYMENT PROCEDURES

- A. Payment application requirements
 - 1. Payment applications shall be submitted in Unifier, consistent with the contract documents.

PART 2 - PRODUCTS
Not Used

PART 3 - EXECUTION
Not Used

END OF SECTION

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS


PART 1 - GENERAL

1.1 PROJECT MANAGEMENT AND COORDINATION

A. Project Meetings

1. Project meetings may be called as deemed necessary by the Project Manager.

B. Project Scope Documentation

1. The Contractor shall use  PlanGrid for coordination of changes in the field, punch list items, and potential use for plan review comments.

C. Project Coordination

1. The Contractor is ultimately responsible for coordination to complete all work shown on drawings and specified herein independent of the location of the work on drawings and within the specifications. The arrangement of work within the specification into Divisions and Sections shall be considered as given for convenience of reference only and shall not be held to conform to jurisdictional rules which may prevail in any particular trade. It shall be the responsibility of the Contractor to so arrange or group items of work under a particular trade to conform to the prevailing customs of that trade and best interest of the Owner. Specific items of work will be performed by specific subcontractors or workmen when so specified herein or subsequently deemed necessary by the Project Representative to produce competent results.
2. The Contractor shall lay out the work and be responsible for all lines and measurements of the work. Before ordering material or executing work the Contractor shall obtain field measurements and prepare the work to fit conditions properly.
3. The Contractor will be held responsible for any error resulting from his/her failure to verify the figures shown on the drawing before laying out the work.
4. No extra charge will be allowed on account of slight variations between field dimensions and dimensions given on the drawings.

D. Mechanical and Electrical Coordination

1. Connection to Existing Equipment
 - a. The Contractor shall make arrangements with Planning, Design and Construction, through the Project Representative, before connecting to existing facilities. Unless otherwise noted, if interruption of service is required it shall be done at the convenience of the Owner.

1.2 CONSTRUCTION PROGRESS DOCUMENTATION

A. Construction Schedule Development/Coordination Responsibilities.

1. A simple bar chart construction schedule shall be prepared by the Contractor an initially submitted to the Owner prior to or at the first Pre-Construction Meeting.
2. The Construction Schedule shall include without limitation, milestones, shop drawing submittals with time allowed for Owner approval, procurement and construction of all major items of work, depicted in weekly increments.
3. The Contractor shall submit updates to the Construction Schedule on no less than a monthly basis and shall submit updates with each Application for Payment, as required by paragraph 3.10 of the Conditions of the Contract.
4. The Contractor shall coordinate its work with the Owner and other Subcontractors and shall cooperate with other Subcontractors by utilizing orderly progress toward completion in accordance with the work scheduled.

1.4 SUBMITTALS

A. Submittal Schedule

1. Concurrently with the development of the Contractor's Construction Schedule, the Contractor shall prepare a complete schedule of submittals. Submit the initial Submittal Schedule along with the Construction Schedule, at, or prior to, the Pre-Construction Conference.
 - a. Coordinate the Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products, as well as the Contractor's Construction Schedule.
 - b. Prepare the schedule in chronological order. Provide the following information:
 - Scheduled date for the first submittal
 - Related section number or specification number
 - Submittal category (Shop Drawing, Product Data, Calculations, Test Results or Samples.
 - Name of the subcontractor
 - Scheduled date for resubmittal
 - Scheduled date for completion of the A/E's review
2. Distribution: Following the Owner's response to the initial submittal, print and distribute copies to the Project representative, A/E, Owner, subcontractors, suppliers and other parties required to comply with the submittal dates indicated. Keep copies at the Project Site at all times.
 - a. When revisions are made, distribute to the same parties and post at the same

locations. Delete parties for distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

3. **Schedule Updating:** Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting, or as requested by the Project Representative.
- A. Submittals are required for, but are not limited to, each of the following. The Contractor should refer to each of the following referenced sections for additional requirements of each submittal. All submittals are to be processed electronically using Unifier.
1. **GENERAL SUBMITTALS**
Section 012000 for Contract Breakdowns
Section 013000 for Safety Documentation
 2. **AS-BUILT DRAWINGS**
As-built Drawings are required as specified in Section 017000.
 3. **CERTIFICATES OF INSPECTION**
Certificates of Inspection are required as specified in Section 017000.
 4. **OPERATION AND MAINTENANCE DATA**
Operation and maintenance data is required as specified in Section 017000.
 5. **GUARANTEES**
Guarantees are required as specified in Section 017000.
 6. **SAMPLES**
Samples are required as specified in Section 013000 for the following items: N/A
 7. **SHOP DRAWINGS**
Shop drawings are required as specified in Section 013000 for the following items:
N/A
- B. Shop Drawings and Samples
1. The Contractor shall review, stamp with their approval, and submit via the Unifier Submittal process to the Project Representative all Shop Drawings and Samples asked for in these specifications, or deemed necessary by the Architect/Engineer.
 2. Work will not begin on any item requiring Shop Drawings or samples until the Contractor receives approval in writing from the Architect/Engineer. Any material or item, ordered or fabricated prior to final approval shall be at the Contractors' risk. No changes shall be made on the approved drawings or samples without the written consent of the Architect/Engineer. Each Shop Drawing or Sample shall be properly identified as to MSU project title and number, Contractor, item, etc., with cover sheet, stamp, tag, etc., so as not to be confused with any other. The Contractor shall direct specific attention with written explanation to any deviation from what is specified or

shown on the drawing.

1.5 SPECIAL PROCEDURES

A. Constructor Safety Requirements

1. MIOSHA regulations apply to all university projects. Each constructor is responsible for ensuring compliance with “all applicable requirements” that govern their work, including any additional regulations, interpretations, clarifications, and consensus standards incorporated therein by reference.
2. MSU-specific safety requirements are published in the Constructor Safety Requirements Manual. The most current version of this manual is available at <http://www.ehs.msu.edu/contractors>. Constructors will be held to the version of the manual in effect at the time of contract execution.
3. Requirements specific to work at Michigan State University generally fall into one of two categories:
 - a. Administrative Requirements, such as but not limited to communication, planning, documentation, submittals, notifications, reporting, and inspections.
 - b. Safety Requirements unique to work at MSU, such as but not limited to Control of Hazardous Energy/Lock Out Tag Out, Confined Space, Electrical, Excavations, Fall Protection, Hot Work, etc.
4. Constructor shall submit a Site-Specific Safety Plan or work under an existing Area-Specific Safety Plan where allowed, as described in the MSU Contractor Safety Requirements Manual.

B. Hazardous Materials

1. If the Contractor suspects a material, preexisting or newly discovered, within the scope of this project to be a hazardous material such as, asbestos, lead, polychlorinated biphenyl or any other potentially hazardous material, that has not already been identified and/or in the scope of work for the Contractor to abate, notify the Project Representative immediately. Do not impact or disturb the material in question until it has been determined to either be non-hazardous, included in the original scope of work, or until other arrangements can be made with the project representative and the MSU Department of Environmental Health and Safety (EHS).
2. Due to the age of buildings on the Michigan State University campus, all coated surfaces shall be assumed to contain lead-based paint. This includes but is not limited to any type of paint, primer, coating, lacquer, or varnish on any building component. Proper precautions must be taken to ensure that workers and building occupants are not exposed to airborne lead concentrations at or above the OSHA Action Level (AL) of 30 ug/m3.

3. If work will be conducted on any coated surface at MSU, the contractor must submit to the Department of Environmental Health and Safety (EHS) and Infrastructure Planning and Facilities Project Representative current proof of appropriate detailed written lead work plan in accordance with 29 CFR § 1926.62 (Michigan Part 603). This submittal will include proof of training, written respirator program, and negative exposure assessments from projects with similar conditions at a minimum. Contractors performing work on campus must follow the provisions of the MSU Lead Management Program from EHS.
4. Any work that impacts Lead shall comply with the provisions of the MSU EHS Lead Management Plan.
5. Any work that impacts Asbestos shall comply with the provisions of the MSU EHS Asbestos Management Plan.

1.6 Requests for Information

- A. Requests for Information (RFI's) shall be processed within PlanGrid, using the RFI business process in the [IPF PlanGrid Standardization Guide](#). Failure to complete the tasks within the Plangrid time frames shall not be a basis for a delay claim.

PART 2 – PRODUCTS
Not Used

PART 3 – EXECUTION
Not Used

END OF SECTION

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 REGULATORY REQUIREMENTS

A. Applicable Codes, Standards, and Regulations

1. The following list of codes and regulations, establish the minimum requirements applied to work done at MSU. Where the specifications or plans, exceed the applicable code, the specifications and plans shall be followed.
 - a. NFPA National Fire Codes.
 - b. NFPA National Electrical Code.
 - c. ICC International Building Code.
 - d. ICC International Plumbing Code.
 - e. ICC International Mechanical Code.
 - f. State of Michigan Elevator Safety Act - Act 227, P.A. 1967.
 - g. State of Michigan Boiler Act - Act 290, P.A. 1965.
 - h. State of Michigan Construction Code Act - Act 230, P.A. 1972, as amended.
 - i. State of Michigan Occupational Safety and Health Act - Act 154, P.A. 1974, as amended.
 - j. Americans With Disabilities Act (ADA) Public Law 101-336.
 - k. Regulations of Air Pollution Control Commission State of Michigan, and the Federal Clean Air Act (42 U.S.C. 1857C - 8 © (1)).
 - l. Soil Erosion and Sedimentation Control - Act 451 of 1994, parts 31 and 91, as amended.
 - m. Environmental Impact Statement Executive Order 1974-4.
 - n. State Fire Safety Board's New Rules for Schools, Colleges, and Universities.
 - o. State of Michigan Safe Drinking Water Act, P.A. 339 of 1976, and Federal Water Pollution Control Act (33 U.S.G. 1319 ©).
 - p. State of Michigan Energy Code (Adopting ASHRAE 90 by reference).

1.2 REFERENCES

A. Abbreviations and Symbols

1. AIA - American Institute of Architects
2. ACI - American Concrete Institute
3. AISC - American Institute of Steel Construction
4. ANSI - American National Standards Institute
5. ASTM - American Society for Testing Materials
6. BOCA - Building Officials and Code Administrators
7. LEED - Leadership in Energy and Environmental Design
7. NFPA - National Fire Protection Association
8. OSHA - Occupational Safety and Health Act
9. SMACNA - Sheet Metal and Air Conditioning Contractors National Association
10. MDOT - Michigan Department of Transportation

11. USGBC - U.S. Green Building Council

1.3 QUALITY CONTROL

A. Testing Laboratory Services

1. All work (materials and installation procedure) shall be tested and inspected by an independent testing and inspection agency, approved by the Project Representative to provide the quality control requirements in accordance with these specifications. Results of these tests and inspections when performed in accordance with these specifications will not be disputed by either party. Failure of the Contractor to provide quality control in accordance with this specification may result in the replacement of the work at the Contractor's expense.

B. Contractor's Responsibilities

1. Submit the name of the proposed testing and inspection agency(s) to the Project Representative for review and approval prior to contracting for such services.
2. Employ and pay the cost of independent testing and inspection as required in this specification. Pay applications from the testing/inspection agency shall be reviewed by the Owner before the Contractor's pay request for testing/inspection services is approved.
3. Advise the testing and inspection agency sufficiently in advance of the work to be inspected in the field to allow time to schedule personnel and equipment to perform the required inspections. Failure of the work to be inspected shall be the sole responsibility of the Contractor regardless of the fault of the testing and inspection agency.
4. Furnish certificates to authenticate the type and or quality of products furnished for installation as required in these specifications.
5. Shall notify the Project Representative in a timely manner when and where testing is to take place to provide sufficient time for the Project Representative to be in attendance.

C. Testing & Inspection Agency Responsibilities

1. Perform all testing and inspection of the work in accordance with these specifications.
2. Furnish qualified personnel and sufficient equipment in a timely manner when required by the Contractor and/or Project Representative to perform all testing and inspection in accordance with these specifications.
3. Provide written reports (2 copies) in a timely manner of the work tested and inspected. The reports shall include complete material test results and for in-place material, a sketch showing the exact location where the test was taken on the project site.

4. The inspection and testing agency and its representatives are not authorized to revoke, alter, relax, enlarge or release any requirements of the Contract Documents, nor to approve or accept any portion of the work.
5. Work will be checked by representatives of the testing agencies as it progresses, but failure to detect any defective work or product will not in any way prevent later rejection when such defect is discovered, nor will it obligate the Owner to final acceptance. When it appears that the work or product furnished is in non-conformance with the Contract Documents, the representative of the testing agency will direct the attention of the Project Representative and Contractor to such non-conformance.
6. Quality control testing items shall include the following:
 - a. As detailed in Special Provisions

D. Authority of the Project Representative

1. May order additional tests and inspection beyond those required, if in their opinion, the subject work may not meet specification. The costs for these tests and inspections shall be borne by the Contractor.
2. May terminate the testing and inspection agency. The Contractor shall then furnish to the Project Representative the name of an additional agency for approval
3. May perform quality control tests and inspections.

PART 2 - PRODUCTS
Not Used

PART 3 - EXECUTION
Not Used

END OF SECTION

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1- GENERAL

1.1 TEMPORARY UTILITIES

A. General

1. The Contractor for the general construction work shall be responsible for all items specified in Section 015000. The Contractor shall install and maintain all items until project is finished and shall remove same and restore areas to their original conditions.

B. Temporary Electricity

1. The Contractor may use any permanent electrical outlets in the construction area.
2. Construction lighting shall be turned off during unoccupied periods, with the exception of lighting required for safety reasons such as path of egress.
3. Temporary service for heavy loads, or where no other service is available, will be provided by the general Contractor at the Contractor's expense. Power for temporary service connected to public utility company lines, (before an MSU service meter) will be paid for by the Contractor. Power for temporary service connected to the MSU power system, or after an MSU service meter, will be furnished by the Owner at no charge.
4. The contractor shall install temporary lighting within the construction area consistent with MIOSHA requirements.

C. Temporary Heat

1. All equipment and labor for temporary heat shall be furnished by the Contractor. Use of University utilities for temporary heat will be at the discretion of the Owner. The cost of natural gas or steam for heating new structures or other applications requiring temporary heat will be paid by the Contractor.

D. Temporary Telephone Service

1. If there is no University phone at the immediate work site, the Contractor shall provide a temporary job site telephone and/or provide the Job Superintendent with a phone activated paging device or cell phone.

E. Temporary Water

1. Each Contractor may use water for construction purposes from the nearest University source.

F. Temporary Sanitary Facilities

1. A toilet in the work area may be used by the Contractor's employees.
2. Where there is no toilet in the work area, an approved chemical type portable toilet will be provided by the Contractor.

1.2 VEHICULAR ACCESS AND PARKING

A. Parking Regulations

1. Unless otherwise directed, all non-University personnel working on the Campus of Michigan State University are required to park as Visitors. Between 7:00 a.m. and 6:00 p.m., Monday through Friday, Visitors may park only in metered parking spaces or gate controlled parking lots.
2. Commercial permits are available from the Department of Police and Public Safety (355-8440), which will allow parking in specific areas. The cost of a commercial permit is the responsibility of the Contractor.
3. Permits for one day parking in areas reserved for university employees are available to Contractors or their personnel from the Department of Police and Public Safety at the current rate, with a signed note from the Project Representative.
4. Parking permits are not required for vehicles south of Mount Hope Road.
6. Remote parking for Contractor personnel is available in parking lots on campus. Due to the limited number of faculty/staff parking spaces in the vicinity of the construction site, no general commercial permits will be issued. Contact MSU University Police and Public Safety Department Parking Office for current rates.

1.3 TEMPORARY BARRIERS AND ENCLOSURES

A. General

1. The Contractor shall provide, install, and maintain necessary temporary barriers, warning signs, and other safety measures to protect the public, property, and plant growth.
2. The Contractor will be required to work within limitations imposed by the University Police and Public Safety Department with respect to vehicular and pedestrian traffic. When approved by the Owner, if it becomes necessary to occupy a traffic lane for **ANY** length of time, proper directional signs, flashers and barricades shall be provided at the Contractor's expense in accordance with the most recent edition of the Michigan Manual of Uniform Traffic Control Devices. The Contractor will replace if damaged or stolen, all barricades, flares, and night protection at Contractor's expense, all being considered as incidental to the work.

B. Dust Control

1. Temporary Partitions

- a. The Contractor shall construct necessary temporary partitions to isolate the new work from the existing building.
- b. Unless noted otherwise, construct partitions of 2” x 4” wood studs, 16” on center and heavy mil, fire retardant plastic sheeting securely attached so as to keep dust, dirt, and debris from spreading beyond the work area.

2. Return Air Openings

- a. The Contractor shall block all return air openings in the work area so that dust will not carry into other areas of the building.

3. Site Dust

- a. The General Contractor shall be responsible for eliminating airborne dust in the work area and staging area by application of appropriate mitigation measures, as approved by the Owner.

C. Security Measures

1. Temporary & Access Keying

- a. The MSU Infrastructure Planning and Facilities Key Shop will furnish construction keys, and furnish and install construction cores for use during construction as deemed necessary by the Project Representative. The Contractor may pick up the construction keys at the Key Shop with the form, "Authorization for Construction Cores and Keys," completed and authorized by the Project Representative.
- b. All construction keys and facility keys issued to a Contractor for a particular project will be returned to the Project Representative before final payment will be processed. If keys are not returned, the Contractor may be held responsible to pay for re-keying any and all affected facilities.

2. Campus Security and Access Control System

- a. When deemed necessary by the Project Representative, temporary security access cards will be issued to the Contractor for building exterior doors, rooms, and/or spaces that are secured by the Campus Security and Access Control System.
- b. On construction projects where the security system is active and armed during construction the Contractor will be assessed a false alarm fee for any unauthorized entry of a secure space and/or setting off an alarm by propping open secured doors/windows, cutting into the security wiring, removing security

devices, or any other action causing an alarm.

- c. The false alarm fees shall be as follows:

First occurrence	No assessed fee
Second occurrence	\$500
Third and subsequent occurrences	\$1,000 each
- d. The breaches of security and associated fees shall be assessed by project to the Contractor, not by sub-contractor, vendor, supplier, etc.

D. Campus Woody Plant Protection

- 1. Coordinate all plant protection and site work limits with the Project Representative. **SITE WORK CANNOT COMMENCE WITHOUT A PRE-CONSTRUCTION WALK-THROUGH.**

All Contractor employees engaged on the project site shall attend, or are expected to have attended, the Contractor Woody Plant Protection Seminar, hosted by MSU's Landscape Services (formerly Grounds Maintenance) Division. This seminar will be presented on an annual basis at a minimum. Coordinate with the Project Representative for times and locations of the seminar(s).

- 2. Work by Owner
 - a. Tie-back of existing plantings. Pruning, thinning, and sealing of existing plantings. Root pruning and root protection of exposed roots. Watering of existing trees under stress. Salvaging of existing small trees, shrubs, and other plant growth that the Owner wishes to retain.
 - b. Tree protection barricades will be provided by the Owner. Plant damage occurring within installed barricades does not absolve the Contractor from damage assessment.
 - c. Work shall be performed by MSU Landscape Services Department unless otherwise arranged, as needed to provide either preventative or remedial care to plants on a construction site. Contractor shall immediately contact the Project Representative should "protected plants" be compromised in violation of agreed upon fencing locations and work limits. Failure to communicate promptly could result in 100% damage assessment of fines.

3. Protection of Plantings

- a. Protect existing trees and other vegetation indicated to remain in place. Prohibited practices include breaking of branches, scraping of bark, or unauthorized cutting; nailing or bolting into trees or plants; use of trees or plants as temporary support (i.e. for cables); unauthorized filling, excavating, trenching or auguring within the root zone; compaction/driving over the root zone; (see definitions below), storage of any materials or vehicles within the root zone;

dumping of construction waste or materials (including liquids); unauthorized removal or relocation of woody plants; removal of tree protection barricades or construction fencing prior to completion of project.

- b. Compaction within the root zone is the increasing of the soil density caused by heavy equipment or concentrated foot traffic which significantly alters the soil conditions from that which was present prior to construction.
- c. The root zone of a tree is one and a half the distance of plant crown drip line outward from the stem, along undisturbed grade. Should placement of concrete be specified or authorized by the Owner within the root zone, a sulfur application will be applied by the Owner. The Contractor shall notify the Owner at least 48 hours prior to pouring concrete. Trees to receive sulfur shall be identified by Owner.

4. Damage

- a. Damage to campus woody plants shall include any of the items indicated in paragraph 2.a above as determined solely by the Owner. The Owner shall evaluate damage and establish proportional fines up to 100% of the value shown below, regardless of the current disposition of the plant.
- b. 100% Value Schedule for Campus Trees
 - 1" - 3" caliper \$200/inch
 - 3" - 6" DBH \$290/inch
 - 6" - 9" DBH \$380/inch
 - 9" - 12" DBH \$480/inch
 - 12" - 15" DBH \$670/inch
 - 15" DBH or greater \$960/inch
- c. DBH is the tree trunk diameter at breast height.
- d. Replacement value for shrubs, vines, and perennials shall be assessed at three times the current market cost of the plant.
- e. Alternatives to the above protective measures, or any variations, must be approved by the Project Representative. (Measures may include: thinning and root pruning, fertilization, aeration, boring & jacking, hand excavation, supervision by campus arborist, seasonal schedule recommendations.) Alternatives would be based on the specific requirements of the plant species in question, as determined by the Project Representative.

1.2 TEMPORARY CONTROLS

A. Soil Erosion and Sediment Control (SESC)

- 1. The Contractor shall comply with all Contract Documents, approved SESC plans, permit conditions and with Parts 31 and 91 of Public Act 451 of 1994. The Owner shall

obtain a Soil Erosion and Sedimentation Control (SESC) permit from the appropriate Municipal (MEA) or County (CEA) Enforcing Agency. Permit Fees and MEA/CEA routine inspections will be paid for by the Owner.

2. Prior to beginning any earth change, the Contractor shall retain a EGLE Certified Storm Water Operator (CSWO) to provide the required SESC reports (which include the weekly and storm event reports as well as all follow up reports for both violations and storm event corrections) on the standard EGLE form. The Contractor shall provide the reports to the Owner on a weekly basis, and retain those reports for 3 years.
3. Prior to beginning any earth change, and during the life of the contract, the Contractor shall install and maintain all temporary SESC measures as shown on the Contract Documents, SESC plans, and as directed by the Owner, CSWO, EGLE, or MEA/CEA, until MSU officially takes over responsibility for the site.
4. Immediately prior to MSU taking responsibility for the site, the Contractor:
 - a. Will be required to clean all catch basins affected by the construction, both within the Contract Limits and all surrounding roads and lawn areas when soil may have spread as the result of construction activities.
 - b. Shall put all temporary SESC measures in satisfactory condition as determined by the CSWO.
5. All temporary SESC measures will remain in place and will become the property of the Owner when responsibility for maintaining the SESC measures becomes the Owner's responsibility.
6. The Contractor shall conduct all excavation, filling, grading and clean-up operations in a manner such that sediment generated by wind or water is not discharged off site or into any storm sewer, drainage ditch, river, lake, air or underground utility system. Stage the work per plan to minimize the area of exposed soil, thereby reducing the opportunity for soil erosion.
7. Water from trenches and other excavation shall be passed through an approved filtration bag to remove sediments from the water before it is released into the storm water drainage system.
8. If sediment extends beyond the project limits, the Contractor shall be responsible for cleanup and restoration of all surfaces and utility systems to the condition that existed prior to the Contract award.
9. All SESC measures shall be maintained daily.
10. Should violations (irrespective of a fine being assessed) be identified by the Owner, CSWO, MEA/CEA or EGLE, they shall be corrected within 24 hours of notification. The correction(s) shall be approved by the Owner, CSWO, MEA/CEA or EGLE. All subsequent inspections performed by the Owner, CSWO, MEA/CEA or EGLE as a result of the violation (and any other associated costs) will be paid by the Contractor. If

identified violations are not corrected within 24 hours of written notice, the Owner shall have the right to make necessary repairs at the Contractor's expense, without being required to provide further notice to Contractor.

11. Fines assessed as a result of the violation for non-compliance of the SESC provisions, will be paid by the Contractor. If a "Stop Work" order for non-compliance is issued, a time extension request for that time period will **not** be granted. (Fines could be assessed up to and including \$25,000/DAY for each violation.)
12. Only one Seven Day Notice will be issued for violations of the SESC provisions. Should subsequent violations be identified, the contractor will be expected to make the satisfactory correction within 24 hours of notification. Should the corrections not be made, the Owner, without further notice to the Contractor, will correct the violation. The cost of the corrective action will be charged to the Contractor.

1.5 CONSTRUCTION DEBRIS CONTROL

- A. The Contractor shall provide and administer a system for disposal of construction debris, and shall be responsible for seeing that the site and the new building are at all times free of accumulated debris caused by the construction. For purposes of this paragraph, debris shall include ALL materials used in construction including construction roads and pads. Special attention should be given to materials that could leach into the ground, including but not limited to lime based materials, all chemicals, and any liquids except clean water.
- B. The Contractor shall comply with LEED Materials & Resources Credit 2, including documentation of the Construction Waste materials recycled, reused and sent to the landfill, using the Construction Waste Management form and process provided by the Owner in Unifier. This form shall be submitted monthly, and will be generated from completed payment applications. Negative reports are required.
- C. This shall include, but not be limited to, rubbish containers conveniently located throughout the site for the daily disposal of debris directly into them from each work location. Debris shall not be allowed to accumulate on the ground through-out the site overnight.
- D. All combustible debris shall be removed to a solid waste disposal site properly licensed under Act 87 of the Public Acts of 1965 of the State of Michigan.
- E. No burning of debris will be permitted on the Project site or elsewhere on the Owner's property.
- F. Should the Contractor not execute the work required in this section, the Owner reserves the right to perform the work by other forces and deduct the cost from the contract price.

1.6 CONFINED SPACES

- A. The workplace may contain permit confined spaces and entry is allowed only through compliance with a confined space program as defined by 29 CFR 1910.146. The contractor is responsible for assessing real or potential atmospheric hazards and other serious safety and

health hazards in the confined space. MSU will make available records of known confined space hazards. The contractor shall provide all necessary equipment for confined space entry. If MSU personnel will be working in or near confined spaces occupied by the contractor, the contractor is required to coordinate activities with the Project Representative. The contractor will inform the Project Representative of procedures followed and hazards confronted or created during entry operations.

1.7 LOCK-OUT/TAG-OUT PROCEDURE

- A. The Contractor shall conform to Michigan State University Infrastructure Planning and Facilities lock-out/tag-out procedure. Copies are available from Planning, Design and Construction, Infrastructure Planning and Facilities Building, Michigan State University.

1.8 FM RED TAG PERMIT MONITORING SYSTEM

- A. When working on fire protection sprinkler systems the Contractor shall conform to the Factory Mutual Red Tag Permit Monitoring System modified by notifying the Project Representative in lieu of the Emergency Organization, Public Fire Department, and Factory Mutual. Documentation is available from Factory Mutual, (781) 255-4359.

1.9 FM HOT WORK PERMIT SYSTEM

- A. For all hot work operations, the Contractor shall conform to the Factory Mutual Hot Work Permit System modified by notifying the Project Representative in lieu of the Fire Safety Supervisor and Factory Mutual. Documentation is available from Factory Mutual, (781) 255-4359.

1.10 HAZARDOUS SUBSTANCE SPILLS

- A. Releases of hazardous substances that pose a significant threat to health and safety, or that, by their very nature, require more than a routine response, are emergency situations. If a release of an emergency nature occurs, call 911 immediately. Provide all applicable information and stay on the phone until told to hang up. If a non-emergency release of a hazardous substance occurs, contact the MSU Infrastructure Planning and Facilities Project Representative immediately.

1.11 ROOF PROTECTION

- A. In the event a roof has to be used as a storage, work and/or walkway area, the following protective measures shall be employed.
 1. The size and location of the storage, work or walkway areas shall be approved by the MSU Infrastructure Planning and Facilities Project Representative.
 2. The storage, work or walkway area protection shall consist of a 1-inch layer of water resistant insulation such as EPS, and a layer of ½ inch plywood. Stagger the seams of the insulation and plywood; use plywood clips to prevent cupping.

3. The perimeter of the area shall be lined with barricades and warning tape to ensure that all traffic will stay on the protected areas.

1.12 CRANE HOISTING

- A. Crane hoisting of equipment or materials over occupied spaces shall be performed at the convenience of the Owner, with arrangements made by the Project Representative.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Storage and Protection

1. The Contractor shall be responsible for work, material, and equipment until finally inspected, tested, and accepted. The project shall be protected against theft, injury, and damage. Material and equipment received on the site shall be carefully stored until installation.

B. Staging Area

1. Should the Contractor require exterior staging or on-site storage of materials - the location of this area must be agreed upon prior to actual use of the space by the Project Representative and the Contractor. The area will not be within the drip-line of any tree or in plant beds, as per Section 015000.1.3.D.3.
2. If this exterior area is outside the fenced project site, the area shall be enclosed with a minimum 4' high welded wire fence, with metal fence T-posts not exceeding 8' on center. Fence fabric shall be supported by either a top bar or a tension cable.
3. The Contractor shall be responsible for the cost of placing and removing the fence.
4. Each designated area shall have only one access route from the road or drive.
5. The area is not to be used for employee parking, but may be utilized by the Contractors' vehicles and equipment necessary to service the project.
6. Any areas damaged as a result of the staging operation shall be repaired by the Contractor, at no additional cost to the Owner.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 017000 - EXECUTION REQUIREMENTS

PART 1- GENERAL

1.1 EXAMINATION

A. Pre-Bid Site Inspection

1. Each Bidder shall be held to have visited the site of the proposed work before submitting their proposal and to have familiarized themselves with all existing conditions affecting the execution of the work in this project. No allowance or extra consideration on behalf of the Contractor or Subcontractor will subsequently be made by reason of failure to observe the site conditions.

1.2 PREPARATION

A. Protection of Work and Property

1. Contractor shall protect existing and new work as required by this construction or as requested by the Project Representative.
2. Interior Protection
 - a. This will include, but not be limited to the wall, floor, and ceiling finishes to remain at the construction site, along the access route to the site, existing elevators, and other areas such as roofs and mechanical rooms where related work is specified or required.
3. Exterior Protection
 - a. The Contractor shall be responsible for any damage to existing facilities, including but not limited to the following: buildings, trees and shrubs, walks, roads, utility systems, terraces and steps, lights, and unreasonable turf damage as determined by the Project Representative. Damage shall be repaired by the Contractor in accordance with MSU's Construction Standards at no cost to the Owner.
 - b. No crawler cranes, bulldozers, or other equipment, fitted and running on steel treads, shall be permitted to traverse any walk, road, street, or other thoroughfare on the Campus of Michigan State University. Where it is necessary to unload such equipment on these thoroughfares, and when approved by the Project Representative, planking shall be provided to protect same. If this is not done, and damage is observed, the cost of replacing shall be the burden of the Contractor causing such damage.
 - c. Staging zones for materials and equipment shall be coordinated with Project Representative. They are to be placed on paved areas where possible. Set-up and storage areas shall be fenced with minimum 6-foot high pedestal-type chain link fencing. Locations shall be reviewed with the Department of Police and Public

Safety and approved by the Project Representative.

- d. Crane hoist dates shall be coordinated with Project Representative for sufficient notice to building users. Project Representative shall direct the notice to the building users and coordinate with DPPS.
- e. Owner may provide temporary access-ways in turf or root zone areas, as determined in pre-construction walk-through. For heavy equipment on turf areas, Alturna mats or approved equal, must be utilized for travel and set-up zones.
- f. All electric, telephone, and steam vaults and water valves shall be protected and remain accessible at all times. Heavy equipment shall not be run over the top of vaults or valve boxes, nor shall materials be stored over them.
- g. Contractor shall provide lighted barricades if building entrances or pedestrian walks are closed after work hours or on the weekends.
- h. Tree pruning, plant tie-back, and vine removal shall be done by the Owner, as coordinated with the Project Representative, and as noted in Section 015000.1.3.D.2.a. Trees or other plant material shall not be used as anchor points for any lines or equipment.
- i. Plant protection as directed by the Project representative:
 - a. Minor work: Plants adjacent to, or below work zones are to be washed off daily. In no case shall masonry dust or other construction debris remain on plants for more than 24 hours.
 - b. Major work: Plants adjacent to, or below work zones are to be covered with breathable woven mesh tarp. Tarp shall be removed at the end of each day and debris disposed of. Debris and dust shall not be absorbed into soil.

B. Field Engineering

1. Quality Assurance

a. Surveyor

- 1. Engage a Registered Land Surveyor, registered in Michigan, to perform ALL project surveying, including construction layout, as outlined in Section 017000-1.2.B, "Field Engineering."

2. Submittals

a. Project Record Documents

- 1. Upon completion of Work requiring Field Engineering, submit a record of Work performed and record survey data as required in Section 017000-1.2.B.5.

2. Upon completion of Work requiring Field Engineering, submit a certificate signed by the Registered Land Surveyor, certifying the location and elevation of improvements comply with the Contract Documents.
3. Control Points
 - a. The Owner will identify existing control points and property line corner stakes.
 - b. Verify layout information shown on the Drawings in relation to the property survey and existing benchmarks before proceeding to lay out the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - c. If a discrepancy between the contract drawings and the existing site is found, contact the Project Representative for a resolution BEFORE any actual layout of the work is begun.
 - d. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
 - e. Promptly replace lost or destroyed control points. Base replacements on the original survey control points.
 - f. Establish and maintain a minimum of two permanent benchmarks on the site, referenced to data established by survey control points.
 - g. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - h. The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction.
 - i. Prior to construction, verify the location and invert elevation at points of connection to existing utilities.
4. Benchmarks and Markers
 - a. Working from lines and levels established by the property survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do no scale Drawings to determine dimensions.
 - b. Advise entities engaged in construction activities of marked lines and levels provided for their use.

- c. As construction proceeds, check every major element for line, level, and plumb.
5. Registered Land Surveyor's Log
 - a. Maintain a surveyor's log of control and other survey Work. Make this log available for reference.
 - b. Record deviations from required lines and levels, and **immediately** advise the Project Representative when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
 - c. On completion of foundation walls, major site improvements, and other Work requiring field engineering, submit this log and associated Project Drawings to the Project Representative.
6. Existing Utilities
 - a. Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in or affected by construction.
7. Site Improvements
 - a. Locate and layout all site improvements including, but not limited to, pavements, structures, earthwork and utility locations and grades.
8. Structure Lines and Levels
 - a. Locate and layout batter boards for structures, building foundations, column grids and locations, floor levels and control lines and levels required for mechanical and electrical Work.

1.3 EXECUTION

A. Cutting and Patching – Concrete and Masonry

1. The Contractor shall be responsible for any cutting, fitting, and patching that may be required to complete this project, except for core drilling required for mechanical and electrical installations, which shall be the responsibility of the Mechanical or Electrical Contractor.
2. The Contractor shall not endanger any work of any other Contractors by cutting, excavating, or otherwise altering any other work and shall not cut or alter the work of any other Contractor except with the written consent of the Architect/Engineer.
3. No cutting of structural members of the building, likely to impair its strength, shall be done without written approval from the Architect/Engineer.

4. To avoid damage to hidden utilities and structural re-enforcement any cutting or core drilling over one inch in diameter, through concrete floors and slabs will be x-rayed/scanned by the contractor prior to cutting.
 - a. A qualified engineer will conduct an on-site assessment before any cutting or drilling of a pre-tensioned or post-tensioned component or other structural component of a building or structure commences. The assessment will be documented and provided to the person contracted to carry out the work.
 - b. If any load bearing member is cut, cored or removed all the requirements of 29 CFR 1926 Subpart T (LARA Part 20) shall apply. This will require notifications to the DEQ 10 working days before cutting begins. Emergency notifications are possible under specific conditions.
 - c. The responsible person for the project shall ensure substantial compliance with the requirements for exposure to Silica Dust. Substantial compliance will also be required for all other construction safety standards and published by the State of Michigan or Federal OSHA.
 - d. Work shall be conducted outside of the regular hours to avoid disturbing the building occupants. An exception to this rule will be granted only by the project manager and shall be in writing.
 - e. The MSU project representative or employee shall be responsible for locating all utilities in the area to be cut. This part of the job is mandatory and shall be given appropriate attention. Minimally the responsible person shall review all available prints and consider structural scanning. The MSU representative or employee shall take necessary steps to isolate and lock out any energy sources that may be jeopardized by the cut to protect worker safety and avoid equipment damage. In some cases, utilities will need to be cut and relocated to conduct the work. The responsible person shall take steps to notify repair persons in advance of the anticipated timing and scope of the repair project or the need for temporary services.
 - f. Responsible person shall inspect the area to ensure that no damage has occurred and that the area is cleaned to an acceptable level.
5. Cutting and Patching for Mechanical Work
 - a. The Mechanical Contractor shall be responsible for any core drilling required to complete their work.
 - b. The Mechanical Contractor shall be responsible for the accurate location of all openings necessary for the installation of the mechanical work. Any additional openings required to move their work due to an error in the initial layout and the repair of inaccurate openings, shall be made at the expense of the Mechanical Contractor.

6. Cutting and Patching for Electrical Work

- a. The Electrical Contractor shall be responsible for any core drilling required to complete their work.
- b. The Electrical Contractor shall be responsible for the accurate location of all openings necessary for the installation of the electrical work. Any additional openings required to move their work due to an error in the initial layout and the repair of inaccurate openings, shall be done at the expense of the Electrical Contractor.

B. Salvaging of Materials

1. Materials or equipment shown on drawing or specified herein to be removed, which are not to be reused or salvaged, shall become the property of the Contractor and will be removed from University property and disposed of legally.
2. Salvage the following items to the locations as directed:
 - a. Post and chain fencing
 - b. Catch basin and/or manhole frames and covers
 - c. Bike racks and loops
 - d. Waste cans
 - e. Street and area light fixtures
 - f. Face brick for repair
 - g. Paver brick
 - h. Limestone cap
3. Deliver all fire alarm equipment removed from the job to the IPF Storage Building 210, 1457 Recycling Drive, East Lansing, MI.
4. Deliver all Best key cylinders to be removed from the job to the Key Shop in the Infrastructure Planning and Facilities Building, 1147 Chestnut Road, East Lansing, MI.
5. Salvage of Brick and Stone
 - a. Salvage brick and stone for patching areas shown on the drawings. All materials shall be carefully palletized and stored at the site. The Contractor shall take special care in handling stone to avoid chipping corners and scarring faces.

1.4 CLEANING UP

- A. Cleaning up shall be in accordance with the General Conditions of the Contract.
- B. No rubble, dust, or debris shall be allowed to accumulate or be transported throughout the building.
- C. A thorough final cleaning of all of the adjacent streets, as specified by the Project Representative, will be required before final payment is made.

- D. If the Contractor fails to clean up, the Owner may do so and the cost thereof shall be charged to the Contractor.

1.5 STARTING AND ADJUSTING

- A. Refer to each Division for requirements.

1.6 CLOSEOUT PROCEDURES

- A. In general, one or more walk-throughs will be performed with the Contractor and punch lists developed of items to be completed before the project can be closed out.

1.7 CLOSEOUT SUBMITTALS AND PROJECT DELIVERABLES

A. Operation and Maintenance Data

1. The Contractor shall provide operation and maintenance data as required in this specification, and submit the required information through use of the Unifier and PlanGrid systems.
2. Submittals for equipment and systems shall contain the manufacturer's information on installation, balancing, operating, maintenance, lubrication, and repair instructions and parts list for each component.
3. Please refer to [MSU Document Submittal Standards](#) and [PlanGrid Standardization Guide](#).

B. As-Built Drawings

1. Submission of all As-built Drawings called for in this specification shall precede request for final payment.
2. The Contractor shall submit As-built Drawings in electronic (.pdf) format, that is not password protected, indicating any deviations from the Contract Drawings, including contract Change Orders. Upon request of the Owner, printed copies of the As-Built drawings shall be provided as well.
3. Provide any Building Information Model (BIM) data developed for this Project to the Project Representative.
4. Please refer to [MSU Document Submittal Standards](#)

D. Construction Safety Documentation

1. The Contractor shall provide written documentation of the following site safety information, as it pertains to the project only:
 - a. List of all lost time accidents.
 - b. Reportable incident rate (total hours worked).

- c. Details of many MIOSHA site visits, including resulting citations, violations, or actions.
- E. Certificates of Inspection
 - 1. The Contractor shall provide a copy of all Certificates of Inspection called for in this specification. Refer to Section 013000 Part 1.4.B.
- F. Construction Waste Management – LEED Documentation
 - 1. The Contractor shall provide written documentation of the Construction Waste Management program, as required for LEED Materials & Resources Credit 2. A form for this purpose is provided within this specification. Refer to Section 024200, Construction Waste Management.
- G. Warranty
 - A. The Contractor shall provide a written guarantee stating that all work performed and material furnished is free from all defects in workmanship, and material for a period of one year, unless noted otherwise, after the equipment has been accepted by the Owner. Final payment or Certificate of Substantial Completion, whichever is issued first, shall constitute Owner acceptance.
- H. Final payment
 - A. The contractor shall provide a sworn statement with final payment. The statement shall detail all subcontractors paid on the project and other information detailed in the link below:

<https://api.gis.msu.edu/edms/file/{C500C6DD-E852-11ED-0000-76DDD13A85C5}>

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
AGGREGATE BASE COURSE

CFS:SAG

1 of 1

APPR:TEB:CRB:10-05-22
FHWA:APPR:12-09-22

Delete the first paragraph of subsection 302.03.A that is shown on page 3-5 of the Standard Specifications for Construction, in its entirety and replace with the following:

Compact the aggregate layers to a uniform thickness, no less than 3 inches and no greater than 10 inches. If the total plan base thickness exceeds 10 inches, construct the base in layers of equal thickness. If placing aggregate base in a layer less than 3 inches, blend the new aggregate base material with the layer below to ensure a total of 6 inches. Unless otherwise directed by the Engineer, blending must be performed to ensure that the new aggregate base material is uniformly mixed and compacted with the aggregate below.

Add the following paragraph before the last paragraph of subsection 302.03.A shown on page 3-5 of the Standard Specifications for Construction:

The Engineer may require a test strip to demonstrate the suitability of the proposed aggregate base placement and compaction method. Secure the Engineer's approval for the method of placement and compaction before continuing. If the accepted method is subsequently modified, the Engineer may require another test strip to confirm compliance with the specification. The Engineer may remove a portion of a layer when conducting density testing to assure the compaction requirements are being met in lower layers.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
DEWATERING BARRIER

BRG:MGB

1 of 1

APPR:JAB:DMG:04-06-23

a. Description. This work consists of designing, constructing, maintaining, and removing a dewatering barrier for dewatering an area around existing substructure units to facilitate substructure work. The dewatering barrier and dewatering system must provide a dry work area for installing and anchoring temporary supports to the top of the substructure footing. Ensure all work is conducted in accordance with the plans, the EGLE permit, this special provision and the standard specifications.

b. Materials. Furnish materials for a dewatering barrier as appropriate meeting the requirements of the standard specifications, as specified herein or as approved by the Engineer.

c. Construction. Design, construct, maintain, and remove the dewatering barrier. Submit a plan outlining the design, installation, maintenance, and removal of the dewatering barrier electronically to the Engineer for approval at least 14 calendar days prior to starting the work in accordance with subsection 104.02 of the Standard Specifications for Construction. Do not proceed with construction of the dewatering barrier until receiving approval from the Engineer. No extensions of time will be granted for rejected submittals.

Construct the dewatering barrier in accordance with the details shown on the plans and this special provision. Construct the dewatering barrier such that it may be readily removed and minimizes any disturbance outside the work area.

Ensure water pumped from within the dewatering barrier is discharged into geotextile filter bags situated in an upland vegetated location approved by the Engineer.

The dewatering barrier may remain in place for the duration of the substructure work. Remove the dewatering barrier if the water surface outside the dewatering barrier reaches the maximum elevation shown on the plans. Anchor dewatering barrier as necessary.

Ensure the dewatering barrier is removed as soon as possible after it is no longer needed for the installation and removal of the temporary supports. If sediment or debris has collected around the barrier, remove such material before the barrier is removed.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract price using the following pay item:

Pay Item	Pay Unit
Dewatering Barrier (Structure Identification)	Lump Sum

The Department will pay for geotextile filter bags separately in accordance with subsection 208.04 of the Standard Specifications for Construction.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
SUBSTRUCTURE HORIZONTAL SURFACE SEALER

STM:JD

1 of 2

APPR:JAB:MTH:06-01-21
FHWA:APPR:06-03-21

a. Description. This work consists of preparing the substrate concrete surface, furnishing and applying a penetrating epoxy healer/sealer system to the top horizontal surface of concrete pier caps, abutment bridge seats, and other locations as specified on the plans. The standard specifications apply except as modified herein.

b. Materials. Use solvent-free, moisture insensitive, 100 percent solids, and two-component epoxy based healer sealer. Ensure containers are marked clearly "Part A" or "Part B". The epoxies that are approved for substructure horizontal surface sealers are in Table 1.

Table 1: Approved Two Component 100 Percent Solids Epoxy Based Healer Sealers

Supplier	Product	Telephone
Advanced Chemical Technologies	SIL-ACT EP 1000 HM	(405)-843-2585
E-Chem	EP100	(505) 217-2121
Euclid Chemical	Dural 335 Dural 50 LM	(800) 321-7628
Poly-Carb	Mark 127	(817) 797-1113
Sika	Sikadur 55 SLV	(248) 866-8956
Unitex	Pro-Poxy 40 LV LM	(800) 745-3700

c. Construction. Prepare surface and apply substructure horizontal surface sealer in accordance with the manufacturer's recommendations, except as modified by this special provision.

1. Surface Preparation. Ensure patching and cleaning operations are inspected and approved by the Engineer prior to surface sealer installation. Protect utilities, drainage structures, bearings, beams, vertical surfaces of substructure units and any other structure within or adjacent to the surface sealer location from surface preparation activities and application of the surface treatment materials.

Do not perform surface preparation or installation of surface sealer on concrete that is less than 28 days of age. Clean the entire concrete surface by abrasive blasting to remove all materials that may interfere with the bonding or curing of the binder. Water blasting or wire brushing is prohibited. The cleaned concrete surface must meet the *International Concrete Repair Institute Guideline 310.2R, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays and Concrete Repair*, concrete surface profile (CSP) 3. Ensure mortar is sound and sufficiently bonded to the coarse aggregate, and presents a

uniform CSP necessary for adequate bond. Use a vacuum truck or oil-free moisture-free air blast to remove all dust and other loose material. Brooms are prohibited. Remove any oil or other contamination after initial cleaning.

No visible moisture can be present on the surface of the concrete at the time of healer sealer application. Oil-free moisture-free compressed air may be used to dry the concrete surface. Use a plastic sheet left taped in place in accordance with *ASTM D4263* to identify moisture in the healer sealer area except as modified herein. Tape a 18 inch by 18 inch transparent polyethylene sheet (4 mil) to the concrete surface. Ensure all edges are sealed with tape that will stick to the concrete substrate. Leave the plastic sheet in place for a minimum of 3 hours or as directed by the manufacturer's recommendations for cure time for the conditions, whichever is longer. Ensure there is no moisture visible on the polyethylene sheet. Ensure alternate methods to detect moisture are approved by the Engineer.

2. Application. Apply the substructure horizontal surface sealer in accordance with the manufacturer's recommendations.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
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Substructure Horizontal Surface Sealer (Structure Identification)	Square Yard
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No compensation will be made to the Contractor for surplus materials.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
TEMPORARY SUPPORT ALTERNATE DESIGN

BRG:KCK

1 of 1

APPR:SCK:REL:08-23-22
FHWA:APPR:09-06-22

Delete the first paragraph of Subsection 713.03.B, on page 7-148 of the Standard Specifications for Construction, in its entirety and replace with the following:

Temporary Supports for Girder Ends. Fabricate and erect temporary supports as shown in the contract or propose an alternate design. Submit alternative design working drawings and calculations to the Engineer for approval a minimum of 14 calendar days prior to beginning work. Base alternative designs on loads and allowable soil pressures shown in the contract. Alternative designs must be in accordance with the AASHTO Standard Specifications for Highway Bridges, 17th Edition and the edition of the AASHTO Guide Design Specifications for Bridge Temporary Works that is current as of the advertisement date. A Professional Engineer licensed in the State of Michigan must seal alternative designs.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
TEMPORARY HAUL ROAD

BAY:KSH

1 of 2

APPR:DMG:RWS:08-23-22

a. Description. This work consists of constructing, maintaining, and removing the temporary haul road and restoring the existing ground disturbed by construction operations as shown on the plans and as directed by the Engineer. The haul road is necessary to facilitate construction and repairs of the bridge. Perform the work in accordance with the contract.

b. Materials. Furnish materials in accordance with the standard specifications.

Ensure the haul road material placed is clean, washed natural aggregate.

Furnish coarse aggregate 3x1 in accordance with section 916 of the Standard Specifications for Construction to be placed as surface aggregate as shown on the plans.

Furnish open-graded aggregate Class 46G in accordance with Table 902-1 of the Standard Specifications for Construction to be placed as aggregate base as shown on the plans.

All other physical requirements of section 902 of the Standard Specifications for Construction for this material are hereby waived. The use of recycled crushed concrete or recycled asphalt pavement for surface aggregate and aggregate base is prohibited for the construction of the temporary haul road.

Submit changes to the temporary haul road to the Engineer for approval at least 21 calendar days prior to construction and include appropriate drainage, earth retention, and SESC measures.

Furnish geotextile separator in accordance with section 910 of the Standard Specifications for Construction.

c. Construction. Electronically submit temporary haul road work plans to the Engineer for review and approval at least 14 calendar days prior to construction. Do not begin construction of the haul road until approval of the work plans is received from the Engineer.

Construct and maintain the temporary haul road as shown on the plans or as approved by the Engineer so it will function as intended and can be readily removed. Minimize disturbance to the existing ground outside the width of the haul road.

Prior to construction of the aggregate base layer place geotextile separator full width and extend out at least 1 foot beyond the haul road on both sides.

If any change or deviation from the activity becomes necessary, the Contractor must request in writing, a revision of the activity. Such revision requests must include complete documentation supporting the modification and revised plans detailing the proposed modification.

Protect all areas to be disturbed by the construction, maintenance, and removal of the temporary haul road with appropriate SESC measures. Place silt fence around the perimeter of the temporary haul road along with other appropriate SESC measures prior to any earth disturbance. Do not remove existing topsoil outside of the width of the haul road.

In areas where the haul road may restrict natural drainage, place temporary culverts sized as necessary to allow passage of surface runoff as approved by the Engineer. Construct the culverts in a manner approved by the Engineer.

In areas where earth retention is required to construct or maintain a temporary haul road, install temporary steel sheet piling or other acceptable earth retention system in accordance with section 704 of the Standard Specifications for Construction and as approved by the Engineer. Do not begin construction of the earth retention system until approval is received from the Engineer.

Remove the temporary haul road when it is no longer necessary and dispose of materials in accordance with the standard specifications. Restore the disturbed areas in accordance with the Special Provision for Turf Establishment, Performance used for this project.

d. Measurement and Payment. The completed work, as described, will be measured as a lump sum and paid for at the contract price using the following pay item:

Pay Item	Pay Unit
Temp Haul Road	Lump Sum

Temp Haul Road includes restoration of the disturbed areas and any culvert and earth retention system the Contractor chooses to use. The cost of the **Temp Haul Road** is based on the items and quantities shown on the plans and will not be paid for separately.

Payment will not be made for temporary haul road that is not constructed if alternate access is provided by the Contractor.

SESC measures, clearing, tree removal and tree replacements will be paid for separately.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
INDUSTRIAL BY-PRODUCTS AND BENEFICIAL RE-USE

HYD:HLZ

1 of 1

APPR:JJG:JFS:04-02-20
FHWA:APPR:04-03-20

a. Description. For this project, regardless of the application, the use of industrial by-products covered in 2014 PA 178 is prohibited unless the use and application of a particular material is covered elsewhere in the contract.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
AGGREGATE, 46G

CFS:JJG

1 of 1

APPR:SAG:DMG:02-15-22
FHWA:APPR:02-16-22

Delete the last row of Table 902-2 in subsection 902 of the Standard Specifications for Construction in its entirety and replace with the following:

Open-graded aggregates	46G	80	45	—	—	—
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MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
MIXING PORTLAND CEMENT CONCRETE

CFS:JFS

1 of 1

APPR:CPM:TEB:12-17-21
FHWA:APPR:12-20-21

Add the following paragraph to subsection 1001.03.E.1 of the Standard Specifications for Construction:

Weigh and batch each material into its respective weighing device within the tolerance from the individual batch weights or quantities documented in the approved JMF as follows:

- a. Cementitious Materials. Provide cementitious materials within -2.0 percent to +5.0 percent of the required weight.
- b. Aggregates. Provide aggregate within ± 3.0 percent of the required weight.
- c. Water. Provide net water to not exceed the required water quantity and the required maximum water/cementitious ratio (w/cm).
- d. Air Entraining Admixtures. Provide the necessary quantity or dosage rate per 100 pounds of cementitious material to achieve the required air content of fresh concrete.
- e. Other Admixtures. Provide water-reducing and other admixtures within ± 3.0 percent of the required quantity.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**ALKALI SILICA REACTIVITY OF FINE AGGREGATE USED IN PORTLAND
CEMENT CONCRETE**

CFS:CPM

1 of 2

APPR:TES:JFS:05-19-20
FHWA:APPR:05-27-20

a. Description. This special provision sets out the requirements for all fine aggregate used in Portland cement concrete (PCC) mixtures to be tested by an independent testing laboratory and determined to be resistant to the potential for deleterious expansion caused by alkali-silica reactivity (ASR). ASR testing is not required for concrete pavement repairs, temporary concrete pavements, and other items covered by the contract.

Except as explicitly modified by this special provision, all materials, test methods, and PCC mixture requirements of the standard specifications and the contract apply.

b. Definition. ASR is a chemical reaction which occurs over time within concrete between highly alkaline cement paste and reactive forms of silica found in some aggregates. In the presence of moisture, an expansive ASR gel is formed which can exert pressure within the concrete, causing random cracking and premature deterioration of the concrete.

c. Laboratory Requirements. The independent laboratory, including all associated testing equipment and staff performing ASR testing of aggregates, must be proficient in ASR testing in accordance with the applicable test methods and procedures. The laboratory must provide documentation to the Regions that they are qualified and proficient to conduct ASR testing in accordance with the required test procedures.

d. Laboratory Testing Requirements. Perform testing on fine aggregate proposed to be used in any PCC Job Mix Formula (JMF). The Contractor must ensure the testing is conducted in accordance with a designated standard test procedure described herein. Test results must conform to the specified criterion for one of the following standard test methods. The Rounding Method described in *ASTM E29* must be used when reporting expansion test results.

(1) Method 1. *ASTM C1293*. Concrete Prism Test. If the expansion of concrete prisms is not greater than 0.040 percent (rounded to the nearest 0.001 percent) after 1 year, the fine aggregate is considered non-deleterious to ASR and may be used in the JMF.

(2) Method 2. *ASTM C1567*. Mortar Bar Test. If no previous test data are available for the fine aggregate that shows it is resistant to ASR using Method 1, above, replace 25 to 40 percent of the Portland cement in the concrete mixture with a supplementary cementitious material (slag cement or fly ash). A blended cement meeting the requirements of *ASTM C595/C595M* containing the above Portland cement and supplementary cementitious material proportions may also be used.

Demonstrate the ability of the supplementary cementitious material to control the deleterious expansion caused by ASR by molding and testing mortar bars in accordance with the standard

test method described in *ASTM C1567* using the mix proportions and constituent sources for both the aggregates and the cementitious materials that will be used for the project. Make at least three test specimens for each cementitious materials-aggregate combination. If the average of three mortar bars for a given cementitious materials-aggregate combination produces an expansion less than 0.10 percent (rounded to the nearest 0.01 percent) at 14 days of immersion, the JMF associated with that combination will be considered non-deleterious to ASR. If the average expansion is 0.10 percent (rounded to the nearest 0.01 percent) or greater, the JMF associated with that combination will be considered not sufficient to control the deleterious expansion caused by ASR and the JMF will be rejected.

(3) Method 3. *ASTM C1260*. Mortar Bar Test. If the expansion of the mortar bars is less than 0.10 percent (rounded to the nearest 0.01 percent) at 14 days of immersion, the fine aggregate is considered non-deleterious to ASR and may be used in the concrete without the need for ASR mitigation.

The Engineer will not approve the use of the JMF if the expansion exceeds the threshold limits for the respective *ASTM* test method used. The test results and report are valid for 2 years from the completion of testing.

e. Submittals. A current ASR test report for the fine aggregate proposed to be used in the Job Mix Formula (JMF) must accompany each JMF. Ensure the ASR test report is accompanied by a certification stating which test procedure was followed and that all testing was conducted in accordance with the designated standard test procedure.

f. Measurement and Payment. All materials, labor, equipment, and laboratory facilities necessary to complete the work in accordance with this special provision is included in other contract pay items and no additional compensation will be permitted.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**QUALITY INDEX FOR PORTLAND CEMENT CONCRETE (FOR LOCAL AGENCY
PROJECTS ONLY)**

CFS:CPM

1 of 4

APPR:TES:JFS:05-28-20

FHWA:APPR:06-04-20

a. Description. This special provision establishes pay factor and price adjustments for Portland cement concrete (PCC) based on Quality Assurance (QA) testing of 28-day compressive strength and fresh concrete air content of PCC. Perform all work in accordance with the standard specifications and this special provision.

b. Materials. Mixture requirements will be in accordance with section 1004 of the Standard Specifications for Construction, unless otherwise specified in the contract.

c. Sampling. Sampling will be in accordance with subsections 1003.03.H and 1003.03.L of the Standard Specifications for Construction, except as modified herein. A sample is defined as a representative quantity of concrete taken during production which is used to measure the quality characteristics for the concrete. Compressive strength specimens for each sample consist of two cylinders, either 4-inch by 8-inch or 6-inch by 12-inch. A random number will be generated for each respective subplot. The sampling frequency for a production lot is one QA sample per subplot.

See subsection 1003.03.J in the Standard Specifications for Construction for reduced sampling and testing for small incidental quantities.

d. Quality Index Analysis. The Engineer's QA test results will be used to determine the pay factor (PF) and price adjustment (ADJ). The Contractor QC test results will be not used for PF and ADJ analysis. The Engineer will complete PF and ADJ analysis within 7 working days after completion of all 28-day compressive strength testing for the represented production lot or quantity of concrete. All values of PF and OLPF in these formulas are decimal, not percent. All values of PF and OLPF are rounded to two decimal places.

Table 1: Quality Index Parameter Specification Limits

Quality Characteristic	Specification Limits
Air Content of Fresh Concrete (percent)	5.5 – 8.5
Rejection Limit (percent)	<5.0 or >9.0
Conc. Temp. (deg. F)	45 - 90 at time of placement
Slump (max.) (inch)	See footnotes a through l in Table 1004-1 of the Standard Specifications for Construction
28-day Compressive Strength (psi)	For LSL see Table 2
Rejection Limit - 28-day Compressive Strength	See Table 2

Table 2: Quality Index Parameter Specification Limits for 28-Day Compressive Strength

Parameter	Grade of Concrete						
	3000	3500	3500HP	4000	4000HP	4500	4500HP
Lower Specification Limit (psi)	3000	3500	3500	4000	4000	4500	4500
Rejection Limit for an Individual Strength Sample Test Result (psi)	2500	3000	3000	3500	3500	4000	4000

1. Pay Factor for 28-Day Compressive Strength (PF_s). (not to exceed 1.00)

$$PF_s = (\text{QA Test Strength})/\text{LSL}$$

Where:

QA Test Strength = QA 28-day compressive strength sample test result.

LSL = Lower specification limit (see Table 2).

If the tested strength does not meet the rejection limit specified in Table 2, the Engineer will require additional evaluation as described in section e of this special provision.

2. Pay Factor for Air Content of Fresh Concrete (PF_{ac}). The pay factor for air content of fresh concrete (PF_{ac}) will be in accordance with Table 3.

Table 3: Air Content of Fresh Concrete Pay Factor (PF_{ac})

Air Content of Fresh Concrete (percent)	Pay Factor (PF_{ac})
5.5 – 8.5	1.00
5.0 – 5.4	0.50
Below 5.0	Rejection
8.6 – 9.0	0.75
Above 9.0	Rejection

If the air content of fresh concrete is below 5.0 or above 9.0 percent, the Engineer will elect to do one of the following:

A. Require removal and replacement of the entire quantity of concrete represented by the test with new testing conducted on the replacement concrete and repeat the evaluation procedure.

B. Allow submittal of a corrective action plan for the Engineer's approval. If the Engineer does not approve the plan for corrective action, subsection d.2.A. will be applied. All costs associated with plan submittal and corrective action under this subsection will be borne by the Contractor.

3. Overall Lot Pay Factor (OLPF). Use the following formula to determine the OLPF and ADJ. The OLPF will not exceed 1.00:

$$\text{OLPF} = (0.60 \times \text{PF}_s) + (0.40 \times \text{PF}_{ac})$$

Where:

PF_{ac} = Pay factor for Air Content (see Table 3)

4. Price Adjustment (ADJ). Use the following formula to determine the ADJ.

$$\text{ADJ} = (\text{OLPF} - 1)(\text{Price})$$

5. Price Adjustment for Small Incidental Quantities. Price adjustment for 28-day compressive strength deficiencies will be based on test results for the corresponding weekly QA test specimens and the pay factor (PF_s) calculated in accordance with the formula defined in subsection d.1. The price adjustment is calculated by the following equation:

$$(\text{ADJ}) = (\text{PF}_s - 1)(\text{Price})$$

Where:

ADJ = Price adjustment per pay unit to be applied to the quantity represented by the QA test.

PF_s = Pay Factor for 28-day compressive strength (not to exceed 1.00).

Price = Base price when established for the pay item or the Contractors unit price bid when concrete is included in another pay item without a base price.

e. Evaluation of Rejectable Concrete. The Engineer will require additional evaluation to decide what further action may be warranted. Acceptance for air content of fresh concrete will be based on QA test results reported at the time of concrete placement.

If the Engineer determines that non-destructive testing (NDT) is appropriate, this work will be done by the Contractor in the presence of the Engineer within 45 calendar days of concrete placement. All costs associated with this work will be borne by the Contractor. Ensure complete set of non-destructive tests is conducted (in accordance with the respective standard test method) at a minimum three randomly selected locations. If NDT is used to estimate the in-situ strength, a calibrated relationship between the project job mix formula (JMF) under evaluation and the NDT apparatus must have been established prior to NDT testing in accordance with its respective standard test method.

If the 28-day compressive strength QA test results show that the rejection limit (as specified in Table 2) has not been achieved, the quantity of concrete under evaluation will be rejected and the Engineer will require additional evaluation to decide what further action may be warranted.

Propose an evaluation plan and submit it to the Engineer for approval before proceeding. The results from NDT will be used only to decide what further action is required. This determination will be made by the Engineer, as follows:

1. For Non-structural Concrete. If no test result from non-destructive testing falls below the lower specification limit (LSL) 28-day compressive strength, the represented quantity of

concrete under evaluation will remain in place and a pay factor for 28-day compressive strength (PF_s) of 1.00 will be applied for overall lot pay factor (OLPF) and price adjustment (ADJ) determinations in accordance with section d of this special provision.

2. For Structural Concrete (including overhead sign foundations). If no test result from non-destructive testing falls below the lower specification limit (LSL), the represented quantity of concrete under evaluation will remain in place and a pay factor for 28-day compressive strength (PF_s) of 0.85 will be applied for overall lot pay factor (OLPF) and price adjustment (ADJ) determinations will be in accordance with section d of this special provision.

3. If one or more of the non-destructive test results fall below the lower specification limit (LSL) 28-day compressive strength, the Engineer may elect to do one of the following:

A. Require removal and replacement of the entire rejected quantity of concrete, including new initial tests for quality index analysis conducted in accordance with section d of this special provision.

B. Allow the Contractor to submit a plan for corrective action, for the Engineer's approval, to address the disposition of the rejected concrete. If the Engineer does not approve the plan for corrective action, subsection e.3.A of this special provision will be applied. All costs associated with plan submittal and corrective action under this subsection will be borne by the Contractor.

C. Allow the in-situ quantity of concrete under evaluation to remain in place and a pay factor (PF_s) of 0.50 will be applied for overall lot pay factor (OLPF) and price adjustment (ADJ) determinations will be in accordance with section d of this special provision.

f. Measurement and Payment. If a price adjustment is made for reasons included in this special provision, that adjustment will be made using the base price established for the specific item. If a contract unit price requires adjustment for other reasons not described in this special provision, the adjustments will be made using the original unit price and the adjustments will be cumulative.

MICHIGAN
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION
FOR
ERRATA TO THE 2020 STANDARD SPECIFICATIONS

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12-01-23

Page	Subsection	Errata
1-06	101.02	Delete the second abbreviation of the list on this page reading: “IES Illuminating Engineering Society
1-06	101.02	Add the abbreviation to the list on this page reading: “IESNA Illuminating Engineering Society of North America
1-83	108.05.A.2	In the first paragraph of this subsection change the language “MDOT Form 1130” to read “MDOT Form 1130A”.
1-88	108.08.D	Move the last paragraph of this subsection to the left one indent to align with the first paragraph of the subsection and not with the subsection 108.08.D.3.
2-29	205.03.P.1	Delete the first sentence of this subsection and replace with the following: “Do not dispose of material, temporarily or permanently, beyond the normal plan fill slope across wetlands or floodplains.”
2-30	205.03.P.2	Delete the first sentence of this subsection and replace with the following: “Do not dispose of material, temporarily or permanently, in wetlands or floodplains.”
2-30	205.03.P.3	Delete the second paragraph of this subsection and replace with the following: “Contact the appropriate regulatory agencies to determine whether an area is a regulated wetland or floodplain before disposing of surplus or unsuitable material in areas outside the right-of-way and not shown on the plans as disposal sites.”
2-30	205.03.P.3	Delete the first sentence of the third paragraph of this subsection and replace with the following: “Immediately move to an upland site any surplus or unsuitable material that was disposed of in portions of wetlands or floodplains not shown on the plans as disposal sites, at no additional cost to the Department.”
2-30	205.03.P.4	Delete the first sentence of this subsection and replace with the following:

“The Department will notify the applicable regulatory agencies if the Department becomes aware that the Contractor disposed of surplus or unsuitable material in portions of a wetland or floodplain not shown on the plans.”

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|------|------------|--|
| 3-31 | 308.04.D | Change the subsection title from “D. General. ” to read “A. General. ” |
| 4-7 | 401.03.E | Delete the third sentence of the second paragraph of this subsection and replace with the following:
“Use precast or cast-in-place footings for precast end sections as required.” |
| 4-8 | 401.03.E | Delete the first sentence of the fourth paragraph on this page of this subsection and replace with the following:
“When discharging stormwater directly to waters of the state, permanently label all end sections or other piped points of stormwater entry with “MDOT” or the local agency’s name in a conspicuous location that will remain visible after construction.” |
| 4-11 | 401.04 | Change the eighth pay item from the bottom of the list on this page to read as follows:
Culv End Sect __ inch, Grate.....Each |
| 4-12 | 401.04.C.4 | Change this subsection to read:
“The Engineer will measure Culv End Sect __ inch, Grate by each as shown on the plans for the size of grate required.” |
| 4-21 | 402.03 | Add a new subsection to the end of subsection 402.03 on this page reading as follows:
“K. Outfall Labeling. Label all stormwater outfalls directly discharging to waters of the state in accordance with subsection 401.03.E. |
| 4-39 | 406.02 | Change the third line in the list of materials to read:
Coarse Aggregate 6A, 6AA, 17A.....902 |
| 4-41 | 406.03.A.3 | Delete the third paragraph of this subsection and replace with the following:
“Design joints between adjacent box culvert sections in accordance with Section 9 of ASTM C1577 and to accommodate the joint sealing material in accordance with section 914 as applicable.” |
| 4-50 | 406.03.G.3 | Change the first sentence of the first paragraph to read:
“Unless otherwise shown on the plans, construct culvert bedding for box culverts by placing a 9-inch-thick layer of 46G aggregate, covered with a 3-inch-thick layer of 34G, 34R aggregate, or approved equal.” |
| 4-51 | 406.03.G.3 | Add the following sentence to the end of the second paragraph of this subsection: |

“The cold applied joint sealer must completely cover the external rubber gasket with the placement limits matching the width of the geotextile blanket.”

- 4-52 406.04.B In the second paragraph of this subsection delete the first sentence and replace with the following:
“The Department will pay separately for cast-in-place concrete, other than for culvert segments, headwalls, wingwalls, aprons, and curtain walls.”
- 5-26 502.02 Delete the first sentence of the subsection and the listed materials in this subsection.
- 5-26 502.02.A Add the following to the end of the first sentence in this subsection:
“(914.04A)”
- 5-26 502.02.B Add the following to the end of the first sentence in this subsection:
“(502.02B)”
- 5-35 503.04 Change the first paragraph to read:
“The unit price for **Paver-Placed Surface Seal**, of the type required, includes the cost of preparing the surface, and placing a membrane and paver placed surface seal course for full-width coverage, except that the Department will pay separately for removing pavement markings in accordance with subsection 812.04”
- 5-46 504.04.A Change the first paragraph to read:
“A. **General**. The unit prices for **Micro-Surface**, regardless of the type required, include cleaning existing pavement, applying a bond coat, stationing, corrective action, and traffic control to complete corrective action.”
- 6-20 602.04 Delete the fifteenth pay item of the list on this page reading:
“Shoulder, Reinf Conc..... Square Yard
- 6-20 602.04 Change the sixteenth thru the eighteenth pay items on this page to read as follows:
Shld, Nonreinf Conc..... Square Yard
Shld, Nonreinf Conc, High Performance Square Yard
Shld, Freeway..... Square Yard
- 6-21 602.04.B.1 Delete this subsection and replace with the following:
“**Shld, Nonreinf Conc**; and **Shld, Nonreinf Conc, High Performance**. The Engineer will measure, and the Department will pay for, **Shld, Nonreinf Conc**; and **Shld, Nonreinf Conc, High Performance** by area, based on plan quantities in accordance with subsection 109.01.”
- 6-21 602.04.B.2 Delete this subsection and replace with the following:
“**Shld, Freeway**. The Engineer will measure, and the Department will pay for, **Shld, Freeway** based on plan quantities in accordance

with subsection 109.01. If the Contractor uses concrete for the shoulder, the unit price for **Shld, Freeway** includes the cost of the transverse joints in the shoulder and the external longitudinal pavement joints.”

6-23	602.04.F	Add the following sentence to the end of the first paragraph of this subsection: Temporary concrete pavement, pavement within 4 feet of an obstruction, pavement areas less than 300 square yards, or pavement less than 3 feet wide will not be cored.
6-23	602.04.F	Delete the following language from this subsection on this page: “The Engineer will not core the following: 1. Temporary concrete pavement; 2. Pavement within 4 feet of an obstruction; 3. Pavement areas less than 300 square yards; or 4. Pavement less than 3 feet wide.”
6-24	602.04	Rename the following subsections as follows: “1. Initial Core.
6-24	602.04	2. Additional Cores.
6-24	602.04	3. Price Adjustment for Thickness.
6-25	602.04	4. Price Adjustments for Steel Locations within the Pavement.
6-26	602.04	5. Remove and Replace.”
7-107	709.04	Change the Pay Unit on the second pay item from the top of the list on this page to read as follows: Thousand Board Foot
8-12	804.03.B.2	Change the first sentence in this subsection to read: “Cast in place light standard and sign support foundations using fixed forms in accordance with the <i>MDOT Standard Plan R-50 series.</i> ”
8-27		Change the last pay item at the bottom of this page to read as follows: Guardrail Anch, Bridge, Det __, Curved.....Each
8-44	810.03.J.9	Add a period to the end of the third sentence in this subsection.
8-53	810.03.V	Add a period to the end of the second sentence of the first paragraph of this subsection.
8-53	810.04	Change the fourth pay item from the top of the list on this page to read as follows: Post, Steel, __ pound.....Foot

- 8-53 810.04 Change the last four pay items at the bottom of this page to read as follows:
 Fdn, Truss Sign Structure Type __, __ inch dia, Cased.....Foot
 Fdn, Truss Sign Structure Type __, __ inch dia, Uncased.....Foot
 Fdn, Cantilever Sign Structure Type __, __ inch dia, CasedFoot
 Fdn, Cantilever Sign Structure Type __, __ inch dia, Uncased.Foot
- 8-55 810.04.B.1 Delete the second paragraph of this subsection and replace with the following:
 “The unit prices for **Fdn, Truss Sign Structure Type __, __ inch dia, Cased** and **Fdn, Cantilever Sign Structure Type __, __ inch dia, Cased** include the cost of concrete, slurry, steel reinforcement, permanent casings, anchor bolts, excavation, and disposal of excavated material.”
- 8-55 810.04.B.2 Delete this subsection and replace with the following:
“Foundation, Truss Sign Structure, Uncased and Foundation, Cantilever Sign Structure, Uncased. The unit prices for **Fdn, Truss Sign Structure Type __, __ inch dia, Uncased** and **Fdn, Cantilever Sign Structure Type __, __ inch dia, Uncased** include the cost of concrete, slurry, steel reinforcement, temporary casings, anchor bolts, excavation, and disposal of excavated material.”
- 8-57 810.04.I Delete the first paragraph of this subsection and replace with the following:
 “The unit price for **Sign, Rem** of the type required includes the cost of removing signs from supports and stacking by shape and size.”
- 8-57 810.04.I Delete the second paragraph of this subsection and replace with the following:
 “The unit prices for **Ground Mtd Sign Supports, Rem; Cantilever, Rem** and **Truss, Rem** include the cost of removing ground mounted sign supports, cantilever or truss supports.”
- 8-57 810.04.L Change this subsection to read:
 “The unit price for Sign, Erect, Salv of the type required includes erecting the salvaged sign on a new sign support or existing sign support, as shown on the plans, and attaching devices, and hardware, including brackets.”
- 8-110 812.04 Change the fifth and sixth pay item from the top of the list on this page to read as follows:
 Sign, Type B, Temp, Prismatic, Spec, Furn Square Foot
 Sign, Type B, Temp, Prismatic, Spec, Oper Square Foot
- 8-141 815.04.C.1.b Delete this subsection in its entirety.
- 8-141 815.04.C.1.c Rename and change this subsection as follows:
 “b. Removal and disposal of unacceptable plants including the root ball.

- 8-141 815.04.C.1.d Delete this subsection in its entirety.
- 8-142 815.04.C.2.d Change this subsection to read:
"During the first watering of the second growing season, remove and dispose of the guying material, identification tags, and inspection tags."
- 8-144 816.03.A Change the third sentence in this subsection to read:
"Use topsoil from within the project limits; or from off-site sources meeting the requirements in subsection 917.06."
- 8-167 818.04 Add the pay item to the bottom of the list on this page as follows:
Power Company (Estimated Cost to Contractor)..... Dollar
- 8-170 818.04.G Delete this subsection in its entirety.
- 8-170 818.04 Rename the following subsections as follows:
"G. **Handholes (Hh).**
H. **Service Disconnect.**
I. **Metered Service.**
J. **Unmetered Service.**
K. **Wood Pole.**
L. **Concrete Pole, Fit Up.**
M. **Steel Pole, Fit Up.**
N. **Bracket Arm.**"
- 8-171 818.04.J Delete the second paragraph of this subsection and replace with the following:
"The pay item, **Power Company (Estimated Cost to Contractor)**, establishes a budgeted amount in the contract to cover the cost of reimbursing the Contractor for payments made to the power company for providing electrical power at the locations shown on the plans. The Department will estimate the reimbursement costs to the Contractor and establish a budgeted amount as shown on the plans. The Department will pay the Contractor for power company invoices paid, as submitted to the Engineer."
- 8-176 819.03.B.5.b In the second paragraph of this subsection delete the first sentence and replace with the following:
"Tighten bolts connecting the pole to the frangible base to a snug tight condition in accordance with subsection 707.03.E.6.c."
- 8-185 820.01.B Add a period to the end of the first sentence of this subsection.
- 8-187 820.02 Change the first line in the list of materials on this page to read:
Conduit Material.....918
- 8-196 820.03.O In the fourth paragraph of this subsection delete the last sentence and replace with the following:
"Use smooth wall, Schedule 80, rigid PVC conduit, or coilable, Schedule 80 PE conduit in accordance with section 818."

8-199	820.04	Add the pay item to the list on this page: TS, (number) Way (type) Mtd (LED) Optic
8-200	820.04	Change the second pay item from the top of the list on this page to read as follows: TS Head, TempEach
8-200	820.04	Change the eleventh pay item from the top of the list on this page to read as follows: TS, Lens, Pedestrian Sym (LED)Each
8-200	820.04	Delete the following pay items from the list: Strain Pole, Steel, 6 bolt, __ foot.....Each Mast Arm Pole, Cat.....Each Mast Arm, __Foot, Cat.....Each
8-200	820.04	Change the eleventh pay item from the bottom of the list on this page to read as follows: Mast Arm, Rem.....Each
8-201	820.04	Delete the following pay item from the list: Power Co. (Est Cost to Contractor)..... Dollar
8-202	820.04	Add the following pay item to the list: Bracket, Truss, Salv.....Each
8-204	820.04.C	Delete the last paragraph of this subsection in its entirety.
8-204	820.04.D	Delete the first paragraph of this subsection in its entirety.
9-9	902.03.C.1.b	Delete the first sentence in this subsection and replace with the following: "The physical requirements for the coarse aggregate are as specified in Table 902-2 and as follows:"
9-16	Table 902-2	Delete the superscript footnote in the first through fourth rows under the header row that reads "(m)" in the column Loss, % max, LA Abrasion (MTM 102).
9-16	Table 902-2	Add the superscript footnote in the header row that reads "(m)" in the column Loss, % max, LA Abrasion (MTM 102).
9-15	Table 902-2	Delete the footnote (d) in one location in the table.
9-17	Table 902-2	Delete the footnote (d) in one location in the table.
9-21	Table 902-6	Delete the footnote (b) in two locations in the table.
9-21	Table 902-6	Change the footnote (c) to read (b) in two locations in the table.

9-21	Table 902-6	Change the footnote (d) to read (c) in two locations in the table.
9-70	909.05.D	Change the first sentence in this subsection to read: "Provide steel pipe for jacking in place meeting the requirements of ASTM A53/A53M for Type E or Type S, Grade B, or ASTM A139/A139M for Grade B."
9-94	Table 910-01	Change the value in the fifth row under the header row in the Permittivity (min) (per second) column from 0.5 to read: "0.05"
9-94	Table 910-01	Change the value in the seventh row under the header row in the Permittivity (min.) (per second) column from 0.5 to read: "0.05"
9-95	Table 910-2	Change the second row under the Ultimate strength section to read: "CMD ^(c) 1950 lb/ft"
9-119	913.06	Change this subsection to read: Circular precast concrete units with circular reinforcement for adjusting rings, tops, risers, and sump bases for manholes, catch basins, and inlets must meet the requirements of AASHTO M199 and the following additions and exceptions:
9-133	917.03	Rename the four subsections following the first paragraph on this page as follows: D. Deciduous Shade Trees. E. Small Trees, Ornamentals, and Shrubs. F. Evergreen Trees. G. Vines, Ground Cover, and Herbaceous Ornamental Plants.
9-149	918.08	In the first paragraph of this subsection delete the second sentence and replace with the following: "Provide light standards designed in accordance with AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."
9-150	918.10	In the first paragraph of this subsection delete the first sentence and replace with the following: "Provide tower lighting units designed in accordance with AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."
9-164	919.04.B	In the first paragraph of this subsection delete the first sentence and replace with the following: "Provide square tubular steel sign supports meeting the chemical, mechanical, and geometric properties of material used in the crash tests referenced in AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals."

9-170	920.02.C	Change the reference to Table 920-2 to read Table 920-3 in two locations.
9-222	922.10.A.3	Delete this subsection and replace with the following: "Conform to the wind load requirements specified by AASHTO's LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals with all equipment mounted without the need for additional ballast;"
10-23	1003.03.B	Delete the last sentence of this subsection and replace with the following: "Aggregate sampling for concrete will be performed by an MCAT-certified Aggregate Technician Level II."
10-43	Table 1006-02	Replace Table 1006-02 with the Table 1006-02 below.
1A - 20A	Pay Item Index	Replace the Pay Item Index in its entirety.

**Table 1006-2:
Overlay Mixtures**

Mixture Type	Aggregate	Slump (inch)	Air Content	Admixture Required	Mixture Proportions lb/yd ³ , dry weight					
					Cement ^(a)	Dry Densified Silica Fume ^(b)	Net Mix Water	Fine Agg	Coarse Agg	Latex Admixture
SFMC	2NS and 26A ^(c)	4-6	6.5 ±1.5%	(d),(e),(f)	618	40	273 ^(g)	1273	1601	—
LMC	2NS and 26A ^(c)	(h)	4.5 ±1.5%	—	658	—	(h)	1490 ^{(i),(j)}	1300 ^{(i),(j)}	206

(a) Use only Type I Portland cement.

(b) For SFMC mixtures, the Contractor may use a blended silica fume Portland cement. However, if the silica fume content of the blended material is greater than 8% of the total cementitious material, submit to the Engineer modified mix proportions with Type I Portland cement added to the blended material to achieve the equivalent individual cementitious material mixture proportions.

(c) Provide coarse aggregate, 95% minimum crushed materials in accordance with Michigan Test Method (MTM) 117, with an absorption no greater than 2.5%, in accordance with ASTM C127.

(d) Water-reducing high-range admixture or water-reducing high-range and retarding admixture.

(e) Virgin polypropylene collated fibers at 2 lb/yd³.

(f) Air-entraining admixture.

(g) Provide a net water to cementitious material ratio of 0.41 (cementitious material includes cement and silica fume).

(h) Add water in addition to water in the latex admixture to control slump to within 3 to 5 inches. Measure slump from 4 to 5 minutes after discharge from the mixer. During the waiting period, deposit concrete on the deck and do not disturb. If placing mixtures on sections within superelevated curves, the Contractor may need to use the lower allowable range of the slump requirement, as determined by the Engineer. Do not exceed water-cement ratio, by weight, of 0.30 including water contained in the latex emulsion.

(i) Aggregate proportions are approximate; due to gradation changes, the Contractor may increase proportions by no greater than 5% by weight of total aggregate if reducing coarse aggregate by an equivalent volume.

(j) Aggregate weights specified in the table are based on a dry bulk specific gravity of 2.65 for gravel and stone. Adjust the weights if the specific gravity of the materials used varies by more than 0.02 from the specified values.