

State of Michigan

Department of Technology, Management and Budget State Facilities Administration Design and Construction Division

DCSPEC
Bidding and Contract Document
Minor Projects

File No. 511/25133.AGY
Funding Code 1080
Department of Military and Veterans Affairs
Replace Shingle Roof UTES, Bldg. 2295
Fort Custer Training Center
Augusta, Michigan

Bid Opening Date: April 9, 2025

BID SUMMARY

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

STATE FACILITIES ADMINISTRATION DESIGN AND CONSTRUCTION DIVISION 3111 W. St. Joseph Street Lansing, Michigan 48917

Bids <u>must</u> be submitted electronically through the SIGMA VSS website at https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService

FILE NUMBER	FUNDING CODE	DEPARTMENT/AGENCY		
511/25133.AGY	1080	Military and Veterans Affairs		
CONTRACT TIME(S) 60 Days	PROJECT NAME Replace Shingle Roof UTES, Bldg. 229	5	LOCATION Fort Custer Training Center 3100 Dickman Road Augusta, MI 49012	
BID OPENING DATE		FOR AN EXAMINATION OF TH		
April 9, 2025 at 2:00 pm ET		Adam Pohl (517) 290-4990		
	ONS TO BIDDERS AND SECTION 00700 GEN I, PERFORM AND COMPLETE THE ENTIRE W RICE (S) STATED BELOW.			
FIRM NAME AND COMPLETE A	NDDRESS	TELEPHONE NUMBER and E-	MAIL ADDRESS	
		SIGMA VENDOR NUMBER		
☐ Qualified Disabled Veteran		(protected information required for processing pays	ments)	
BIDDER'S SIGNATURE AND TI	TLE DATE	WITNESS' SIGNATURE	DAT	
By signing this bid above, bidder cer	tifies their enclosed Qualified Disabled Veter	an and Michigan-Based Business	Certifications.	
BASE BID FROM BID SCHE	EDULE (Include specified Allowance	es).		
<u> </u>	(merade epeemed ; me wante	55).		
		Dollars	(in figures)	
(use words)				
Alternate1: (Add/Subtract)		Dollars	\$\$	
	(use words)		(in figures)	
Alternate 2: (Add/Subtract)		Dollars	(in figures)	
/	(use words)		(in figures)	
Alternate 3: (Add/Subtract)		Dollars	. ¢	
Alternate 3. (Add/Subtract)	(use words)	Dollars	(in figures)	
A PERFORMANCE BOND AND A PAYMENT BOND ARE REQUIRED FOR ALL BIDS OVER \$50,000.00. EACH BID MUST BE ACCOMPANIED BY A FIVE (5) PERCENT BID GUARANTEE. BUILDERS RISK INSURANCE IS REQUIRED TO BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED IN THE BID DOCUMENTS.				
BIDDERS ARE ALSO CAUTIONED	TO FAMILIARIZE THEMSELVES WITH ALL	OF THE OTHER CONDITIONS	OF THE CONTRACT.	
	des, but is not necessarily limited to provided work, at the Fort Custer Training Centel 524016.			
	Bid on the specified, or Addendum-apprmitted after Bid opening, except as prov			
Addenda: Bidder acknowledges	receipt of Addenda: No dated:	, No dated:	No dated:	

File No. 511/25133

FIRM NAME	TELEPHONE NUMBER and E-MAIL ADDRESS

BID SCHEDULE

Base Bid Schedule - The Bidder will complete the Work and accept as full payment, for the Work items listed, the following Unit Prices and/or Item Bid Prices, as applicable:

Base Bid	Bid	Description	Unit	Item Bid
Item No.	Quantity		Price	Price
1	200 SF	Building roof – remove and replace wet, damaged, or deteriorated insulation. This quantity shall be verified by the DMVA inspector. If quantity varies from bid quantity the contract amount will be increased or decreased at the unit cost provided here.		
2	Lump Sum	ALLOWANCE AMOUNT	\$10,000	\$10,000
	-			
3	Lump Sum	All other work required by contract.		
	TOTAL (This amoun	t should equal the Base Bid amount on the	Bid Summary Form)	\$

Base Bid (Sum of Item Bid Prices for all Base Bid Items):		
	Dollars \$	(. 5.
(use words)		(in figures)

Schedule of Alternates - The Bidder will complete (or deduct from the Contract) the parts of the Work designated by the Alternates that follow and accept in full payment (or allow in full credit) for those parts of the Work the following Item Bid Prices:

Alternate Item No.	Bid Quantity	Description	Unit Price	Item Bid Price
N/A				

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

Schedule of Unit Prices or Contingent Change Order Prices - The Bidder shall use this "Schedule" to quote unit prices identified in the bid documents or propose other contingent Change Order prices. The proposed Unit Prices or contingent Change Order prices set forth in this schedule, at the sole discretion of the Owner, may, or may not be incorporated into the Contract Documents. The Owner reserves the right to negotiate Unit Prices or contingent Change Order prices set forth herein prior to their possible incorporation into the Contract Documents.

Item No.	Bid Quantity	Description	Unit Price	Item Bid Price



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration Design & Construction Division

Qualified Disabled Veteran (QDV) Business Representation

'Qualified Disabled Veteran,' means a business entity that is 51% or more owned by one or more veterans with a serviceconnected disability. 'Qualified Disabled,' means a business entity that is 51% or more owned by one or more with a service-connected disability. The vendor represents that it IS _____, a qualified disabled veteran. The contractor represents and warrants that the company meets the above (when checked) and has attached supporting documentation per the following: Each bid requesting the Qualified Disabled Veterans (QDV) preference, in accordance with Public Act 22 of 2010, MCL 18.1241.3 shall include a DD214 Proof of Service and Discharge, a Veterans Administration rating decision letter, proof of disability (if the disability is not indicated on the DD214), and appropriate legal documents setting forth the 51% natural persons QDV ownership. Fraudulent Certification as a Qualified Disabled Veteran may result in debarment under MCL 18.264. Certification of a Michigan Based Business (Information Required Prior to Contract Award for Application of State Reciprocity Provisions) To qualify as a Michigan Based Business: Vendor must have, during the 12 months immediately preceding this bid deadline: If the business is newly established, for the period the business has been in existence, it has: (Check all that apply): Filed a Michigan single business tax return showing a portion, or all the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL 208.1 – 208.145: Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or I certify that I have personal knowledge of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities. I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency. Bidder shall also indicate one of the following: ☐ Bidder qualifies as a Michigan business (provide zip code: ☐ Bidder does not qualify as a Michigan business (provide name of State:). ☐ Principal place of business is outside the State of Michigan, however service/commodity provided by a location within the State of Michigan (provide zip code: (

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 § 268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN \$25,000 and subject to debarment under MCL 18.264.

BID BOND

BID SUBMITTED ON the	day of, 20	
Bid Security is in the form of a l	Bid Bond Bid Bond form has been duly ex	xecuted; or
A Bank Certified or Cashier's che Order, the original check or mo submittals are also still to be m	ck or Money Order is attached to this page _ ney order must be delivered to the issuing office be ade).	(If Bid Security is by Check or Mone efore Bid Due Time. ALL other SIGMA bid
If the Bidder is an Individual:		
Name of Individual:		
Name & Title of Person	Authorized to sign:	
Signature:		
_	(If not the Individual, Attach Power of Attorney)	Date
Doing Business as:		
Business Address:		
County of registration		
Telephone:	FAX:	
If the Bidder is a Partnership:		
Ву:	(True Name of the Partnership)	
	Partner Authorized to Sign	Date
Signature:		
	(Attach evidence of Authority to sign)	Date
Business Address:		
County of registration		
Telephone:	FAX	
If the Bidder is a Corporation:		
Ву:	(Legal Corporation Name)	
Nama & Title of Authoria	,	
Name & Title of Authoriz	ed Officer.	
Signature:	(Attach evidence of Authority to sign)	 Date
Name & Title of Officer A	,	
Signature:		
Oignature.		Date
Business Address:		
Telephone:	FAX	
(State of Incorporation):		
EACH JOINT VENTURER SIGNII OR A CORPORATION. IF MOR	E: JOINT VENTURE SIGNATURES MUST BE AS PRO NG THE BID MUST SIGN IN THE MANNER INDICATE SE THAN TWO JOINT VENTURERS OF THE SAME STATE OF INCORPORATION	ED FOR AN INDIVIDUAL, A PARTNERSHIF TYPE ARE INCLUDED, USE ADDITIONAI

POST-BID SUBMITTALS

The PSC will request this submittal after bid opening. Complete and submit these items within two business days after the request.

BIDDER'S EXPERIENCE MODIFICA Attach letter of explanation if the Bidder			
PROPOSED PROJECT SUPERINT Attach brief resume or list of similar s	ENDENTsuccessful projects.		
LIST OF SIMILAR PROJECTS COMPlease list at least three completed prinformation	MPLETED BY THE BIDDER projects of similar size and complexity to the	e project being bid, with reference o	contact
REFERENCE #			
Owner:			_
Project/Contract Name:			_
Location of Project/Contract:			_
Contract Price:	Project/Contract Started:	Completed:	_
Owner's Representative (Name and	Telephone):		_
Scope of Project/Contract:			_
REFERENCE #			_
Owner:			_
Project/Contract Name:			_
Location of Project/Contract:			_
Contract Price:	Project/Contract Started:	Completed:	_
Owner's Representative (Name and	Telephone):		_
Scope of Project/Contract:			_
REFERENCE #			
Owner:			_
Project/Contract Name:			_
Location of Project/Contract:			_
Contract Price:	Project/Contract Started:	Completed:	_
Owner's Representative (Name and	Telephone):		_
Scope of Project/Contract:			_

POST BID SUBMITTALS: LIST OF SUBCONTRACTORS

The Apparent Low Bidder shall nominate for each Division of Specification and/or trade category, the Subcontractor to be awarded Sub-agreements, including the apparent Low Bidder if work is to be self-performed. Nominated subcontractors shall not be removed, replaced, or added to except by written request for good reason, subject to Owner acceptance.

Division, Specification Section and/or Trade	Nominated Subcontractor(s)	Amount of Subcontract
1		
2		_
3		_
4		
5		_
6		
7		
8		
9		
10		
11		
12		
13		
14		
The undersigned Apparent Low Biothe information and data furnished in	dder n this List of Subcontractors are current, a	certifies that all accurate and complete as of the date stated below.
Signed by:	Name	Title
on this day of _	, 20	

PERFORMANCE BOND

SURETY COMPANY REFERENCE No.

partnership, joint venture of the State of		, qualified to do business in the State of Michigan, as
nincipal, and the Surety,, as surety, are held and bot	ind unto the Si	, a corporation, individual,, qualified to do business in the State of Michigan, as, of the State of tate of Michigan, "the Owner ," as Obligee, in the amount of Dollars (\$
the payment of which the Contractor and Surety bassigns, jointly and severally, in compliance with 19		s, their respective heirs, successors, legal representatives and
The Contractor has entered into "the Contract" w, "the Work," covered by the Correference.	ith the Owner ntract Documen	for tts, which are incorporated into this Performance Bond by this
If the Contractor faithfully performs and fulf undertakings, covenants, terms, conditions,	ills all the	modification of the Contract Documents (including addition deletion, or other revision).
indemnifications and agreements of the Contract	Documents	
within the Contract Time (including any authorize with or without notice to the Surety) and during the Period, and if the Contractor also performs and fo	e Correction ulfills all the	B. This Performance Bond must be solely for the protection of the Owner and its successors, legal representatives or assigns.
undertakings, covenants, terms, conditions, indemnifications and agreements of any and all duly modifications of the Contract Documents, to OBLIGATION IS VOID, OTHERWISE TO REMAIFORCE AND EFFECT.	authorized hen THIS	C. It is the intention of the Contractor and Surety that they must be bound by all terms and conditions of the Contract Documents (including, but not limited to General Conditions and this Performance Bond). However, this Performance Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Performance Bond is/are
A. No change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents including addition, deletion, or other revision) releases the Surety of its obligations under this Section 00610 Performance Bond. The Surety expressly waives notice of any such change in Contract Price or Contract Time, "or equal" or substitution or		illegal, invalid, or unenforceable, all other provisions of this Performance Bond must nevertheless remain in full force and effect, and the Owner must be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.
Regulatory Affairs – Insurance Bureau, must be liste	ed on the currer	e State of Michigan by the Department of Licensing and nt U.S. Department of the Treasury Circular 570, and, unless n A– Best's rating and a Class VII or better financial size category
Name, Address and Telephone of the Surety:		Address and Telephone of Agent, who is either a resident of, or whose principal office is maintained in, the State of Michigan
Signed and sealed this day of		, 20
THE CONTRACTOR : (Print Full Name and Sign)	Ву:	
WITNESS	Name & Title	e:
		lo
THE SURETY: (Print Full Name and Sign)	Agent:	
WITNESS	Attorney-in-F	-act:
		lo.

PAYMENT BOND

CLIDETY	COMPANY	REFERENCE No.	
SUKELL	CUMPANT	REFERENCE NO.	

"the Contractor," of the State of	nua	, a corporation, individual, partnership lified to do business in the State of Michigan, as Principal, and
"the Surety,"	, qua	, of the State of
, as surety, are held and l	bound unto the	, of the State of State of Michigan, "the Owner ," as Obligee, in the amount of Dollars (\$), for
the payment of which the Contractor and Suret assigns, jointly and severally, in compliance with		s, their respective heirs, successors, legal representatives and
The Contractor has entered into "the Contractor, "the Work," covered by the contract of the	t" with the Own he Contract Doc	er for uments, which are incorporated into this Payment Bond by this
reference.		
If the Contractor promptly pays all claimants supmaterials to the Contractor or to the Subcontractors in the prosecution of the Wordburghard o	Contractor's rk, then THIS	hereby expressly waives notice of any such change in Contract Price or Contract Time, "or equal" or substitution or modification of the Contract Documents (including addition, deletion, or other revision).
A. All rights and remedies on this Payment Bond the protection of all claimants supplying labor are the Contractor or the Contractor's Subcont prosecution of the Work and must be determined with Michigan Law.	nd materials to ractors in the in accordance	C. It is the intention of the Contractor and Surety that they must be bound by all terms and conditions of the Contract Documents (including, but not limited to this Payment Bond). However, this Payment Bond is executed pursuant to 1963 PA 213, as amended, MCL 129.201 et seq., and if any provision(s) of this Payment Bond is/are illegal, invalid, or unenforceable, all other provisions of this Payment Bond must nevertheless remain in
B. No change in Contract Price or Contract Time substitution or modification of the Contract (including addition, deletion, or other revision) must Surety of its obligations under this Payment Bon	t Documents ust release the	full force and effect, and the Owner must be protected to the full extent provided by 1963 PA 213, as amended, MCL 129.201 et seq.
Affairs - Insurance Bureau, must be listed on the	current U.S. Dep	the State of Michigan by the Department of Licensing and Regulator artment of the Treasury Circular 570, and, unless otherwise authorize nd a Class VII or better financial size category per current A. M. Bes
Name, Address and Telephone of the Surety:		Address and Telephone of Agent, who is either a resident of, or whose principal office is maintained in, the State of Michigan
Signed and sealed this day of		, 20
THE CONTRACTOR : (Print Full Name and Sign)	Ву:	
WITNESS	Name & Title	:
		o
ΓΗΕ SURETY: (Print Full Name and Sign)		
WITNESS	Attorney-in-F	act:
		0

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DIVISION 00 BIDDING REQUIREMENTS AND CONTRACT CONDITIONS

SECTION 00010 PRE-BID INFORMATION

- 1. Invitation to Bid (ITB) Your firm is invited to submit a Bid. The State of Michigan as the Owner will receive bids electronically through the SIGMA VSS website at https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService, for replace shingle roof UTES, building 2295 at the Fort Custer Training Center until 2:00 p.m., ET, on April 9, 2025. The State reserves the right to cancel this Invitation to Bid (ITB) or change the date and time for submitting Bids by announcing same at any time before the established date and time for Bid opening. Bids must remain open for acceptance by the Owner for no less than the Bid hold period. Contractor may agree to extend the Bid hold period. However, any such extension must be based upon no increase in the Bid Price and/or Contract Time.
- 2. Work Description The Work, <u>replace shingle roof UTES</u>, <u>building 2295 and other related items at the Fort Custer Training</u> Center, Agency No. 511, Funding Code. 1080, DTMB File No. 511/25133.AGY includes, but is not necessarily limited to:

Provide all labor, equipment, and materials to replace shingle roof UTES, building 2295 and all related work at the Fort Custer Training Center, in accordance with these specifications and accompanying drawings, DMVA Project No. 2610524016.

The site is located at the UTES, Bldg. 2295, Fort Custer Training Center, 3100 Dickman Road, Augusta, MI 49012, as shown on the Drawings.

- **3. Bidding Documents** Sets of Bidding Documents may be obtained at https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService.
- 4. Bid Security Each Bid must enclose a duly executed Bid Security, in the amount of five percent (5%) of the Bidder's Base Bid, paid to the "State of Michigan" in the form of a certified or cashier's check or money order drawn upon a bank insured by an agency of the Federal Government, or a bid bond signed by both the Contractor and authorized surety company. If Bid Security is by check or money order, such certified or cashier's check or money order must be delivered in original copy before the Bid Due Time to:

State Facilities Administration Design & Construction Division 3111 W. St. Joseph Street Lansing, Michigan 48917

All other Bid information must be submitted via SIGMA as per standard bidding procedure

5. Pre-Bid Conference – A <u>mandatory</u> pre-bid conference will be held at <u>Fort Custer Training Center</u>, <u>Building 2590 Public Works</u>, <u>26th Street</u>, <u>Augusta</u>, MI on <u>March 11</u>, 2025 at <u>10:00am</u> ET. A tour will be held on the same day, starting after the pre-bid conference. All prospective Bidders are required to attend the tour, if held. Other parties interested in the Work are encouraged to attend the tour. Addenda may be issued, in response to issues raised at the pre-bid conference and tour, or as the Owner and/or Professional may otherwise consider necessary.

The purpose of the pre-bid conference and inspection is to answer questions and provide an inspection tour of the Project site at the scheduled time on the day of the meeting. A representative will be available to assist the Contractors. Other inspection visits may be allowed if needed. Individuals needing special services to fully participate in the meeting due to a disability may contact Adam Pohl at (517) 290-4990. An individual is only permitted to represent one bidder at a mandatory Pre-Bid Conference.

6. SIGMA VENDOR NUMBER: If you are bidding a State job for the first time, visit the State of Michigan SIGMA website, https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService, and follow the "SOM VSS User Guide for New Vendors" instructions, located under Forms and Reference Documents. Registration is required for bid submission. Do not wait until the last minute to submit a proposal, as the SIGMA system requires the creation of an account and entry of certain information, in addition to uploading and submitting the materials. The SIGMA system will not allow a proposal to be submitted after the proposal deadline, even if a portion of the proposal has been updated.

Questions on how to submit information or how to navigate in the SIGMA VSS system can be answered by calling (517) 373-4111 or (888) 734-9749.

- 7. Equal Employment Opportunity Covenants to not discriminate in employment by Contractors, Subcontractors and Suppliers required by Law are contained in Instructions to Bidders and General Conditions and are applicable to the Work and any Subagreement under the Contract.
- 8. Contract Times The Contract Times and the associated liquidated damages are specified in the Contract.
- 9. Contact Person All requests or inquiries concerning the Bidding Documents, or the Work must be addressed to: <u>Josh Harris</u> at <a href="mailto:harrisgo:
- 10. Award Subject to any agreed extension of the period for holding Bids, Bids must remain valid for acceptance by the Owner for 60 Calendar Days after the date of Bid opening. In addition, the Owner expressly reserves the right, within the Owner's sole discretion, to reject any or all Bids, to waive any irregularities, to issue post-Bid Addenda and re-bid the Work without re-

advertising, to re-advertise for Bids, to withhold the award for any reason the Owner determines and/or to take any other appropriate action.

11. Performance and Payment Bonds – A performance bond and a payment bond are required for all contracts over \$50,000.00.

END OF SECTION 00010

SECTION 00100 INSTRUCTIONS TO BIDDERS

- 1. **PREPARATION OF BID:** Execute Bid fully and properly. Bid Summary Form (DTMB -0401D) and Bid Form Attachments must be used and completely filled out for the Bid to be considered responsive and meeting the requirements of the contract solicitation. All Bid prices must be printed or typed in both words and figures.
- 2. BID CHECKLIST: Submit Bid Summary Form with original signatures plus Bid Form Attachments in accordance with the electronic bidding procedures on the SIGMA VSS website.

A complete Bid will consist of the following forms, which are included immediately following the Bid Summary Form:

<u>Bids</u>	SUBMI	T THESE Bid Forms and Bid Form Attachments
All Bids		Signed and completed Bid Summary Form (DTMB-0401D).
		Bid Schedule.
		Qualified Disabled Veteran (QDV) Business Representation.
		Bid Security in the amount of 5% of Base Bid Price.
		ecurity is by check or money order, such certified or cashier's check or money order must be delivered in original afore the Bid Due Time to:
		State Facilities Administration Design & Construction Division 3111 W. St. Joseph Street Lansing, Michigan 48917
	All othe	r Bid information must be submitted via SIGMA as per standard bidding procedure
		Signature Authorization or copy of the partnership agreement if signed by all partners.
		Other Forms
Over \$50K		Forms listed under All Bids.
		Payment and Performance Bond (upon issuing the Notice of Award).
Over \$100K		Forms listed under All Bids.
		Certification of a Michigan Based Business.
		Payment and Performance Bond (upon issuing the Notice of Award).
Over \$250K		Forms listed under All Bids.
		Certification of a Michigan Based Business.
		Payment and Performance Bond (upon issuing the Notice of Award).
parent Low B	Bidders (ONLY (upon request from the Professional)
		Experience Modification Rating (EMR), or a letter stating why the Bidder does not have one.
		Identification of the proposed project superintendent, with a resume or list of similar projects handled by that individual.
		A list of at least three (3) projects completed by the Bidder, within the last three (3) years of similar size and complexity, with contact information for references for each.
		A list of nominated sub-contractors, including proposed self-performed categories, for each Division/Trade/etc.

- 3. BID SUBMISSION: Bids must be submitted electronically through the SIGMA VSS website at https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService.
- 4. BID GUARANTEE: Each proposal must be accompanied by either a bank certified or cashier's check on an open, solvent bank or a bid bond with an authorized surety company (the surety must be listed on the current U.S. Department of the Treasury Circular 570) in the amount of five percent of the base bid payable to the State of Michigan, as a guarantee of good faith. If the successful Bidder fails to furnish satisfactory bonds and insurance within fifteen Calendar Days after Notice of Award, such guarantee must be forfeited to the State as liquidated damages. If Bid Security is by check or money order, such certified or cashier's check or money order must be delivered in original copy before the Bid Due Time to the Issuing Office. The bid security, exclusive of bid bonds, of all unsuccessful Bidders will be returned when an award is made or upon substitution of a bid bond. The bid security of the successful Bidder will be returned when the performance bond and labor and material bond are approved.
- 5. Left Blank Intentionally.
- 6. MICHIGAN BASED BUSINESS CERTIFICATION: All Bidders submitting Bids in excess of \$100,000.00 must complete the Certification of Michigan Based Business. This information will determine if a Bidder qualifies as a "Michigan" business for purposes of application of reciprocity where applicable.
- 7. POST-BID SUBMITTAL: For all projects, the Professional may request a Post-Bid Submittal from the Apparent Low Bidders. The Apparent Low Bidders must submit to the Professional, within two Business Days after receipt of the Professional's request,
 - Experience Modification Rating (EMR), or a letter stating why the Bidder does not have one.
 - Identification of the proposed project superintendent with a resume or list of similar projects managed by that individual.
 - A list of at least three (3) projects completed by the Bidder, within the last three (3) years of similar size and complexity, with contact information for references for each.
 Failure to provide the submittals may disqualify the Bid.
- 8. SIGNATURES: All Bids, notifications, claims, and statements must be signed as follows:
 - (a) **Corporations:** Signature of official must be accompanied by a certified copy of the Resolution of the Board of Directors authorizing the individual signing to bind the corporation.
 - (b) **Partnerships:** Signature of one partner must be accompanied by a signed copy of the legal document (e.g., Power of Attorney or partnering agreement) authorizing the individual signing to bind all partners. If Bid is signed by all partners, no authorization is required.
 - (c) Individual: No authorization is needed. Each signature must be witnessed.
- 9. BID PRICES: The Bidder's Base Bid and Alternate Bid prices must include, and payment for completed Work will compensate in full for: all services, obligations, responsibilities, management, supervision, labor, materials, devices, equipment, construction equipment, general conditions, permits, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, supplies, Bonds, insurance, taxes, mobilization, close-out, overhead and profit and all connections, appurtenances and any other incidental items of any kind or nature, as are necessary to complete the Work, in a neat, first quality, workmanlike and satisfactory manner in accordance with the Drawings and Specifications and as otherwise required to fulfill the requirements of the Bidding Documents. For each Cash Allowance item, the Bidder must include, within the Bid, all labor costs, construction equipment costs, insurance and Bond premiums and other general conditions costs and Fees (Bidder's and Subcontractors') to complete Work associated with the material, equipment, or other designated item to be furnished under the Cash Allowance. For each Provisionary Allowance, the Bidder must include, within the Bid, insurance, premiums (not recoverable as labor burden) and Bond premiums required to complete Work that may be ordered under a Provisionary Allowance.
- 10. INSPECTION OF BIDDING DOCUMENTS AND SITE CONDITIONS: The Bidder must carefully review and inspect all documents referenced and made part of this ITB, site conditions, all applicable statutes, regulations, ordinances, and resolutions addressing or relating to the goods and services under this contract. Failure to do so or failure to acquire clarifications and answers to any discovered conflicts, ambiguities, errors, or omissions in the Bidding Documents will be at the Bidder's sole risk.
- 11. SAFETY REQUIREMENTS AND LAWS: The Bidder awarded the Contract must comply with all applicable federal, state, and local Laws including health and safety regulations, environmental protection, permits and licensing.
- 12. INTERPRETATIONS AND ALTERATIONS TO THE BID AND BIDDING DOCUMENTS: All requests for clarification or interpretation of the Bidding Documents, all proposals for any modifications to the Bidding Documents, all requests for information and all other questions or inquiries about the Bidding Documents and/or the Work shall be submitted in writing to the Contact Person identified in the Bid Documents. Requests or inquiries received less than seven Calendar Days before the date of Bid opening will be answered only if (a) the response can be given through an Addendum made available at least seventy-two hours before Bid opening (counting Business Days only), (b) the Bid opening is postponed by Addendum, or (c) the Work is rebid without readvertising following the issuance of post-Bid Addenda.

Bidders must not rely upon any oral statements or conversations regarding interpretations, clarifications, corrections, additions, deletions or other revisions or information to the Bidding Documents. Any addition, limitation or provision made with or attached to the Bid may render it non-responsive and/or irregular and be a cause for rejection. The Owner reserves the right to issue a post-Bid Addendum after opening the Bids and set a new date for the receipt and opening of sealed Bids. The Bidder acknowledges that any quantities of Unit Price Work given in this ITB are approximate only and payments will be made only for actual quantities of Unit Price Work completed in accordance with the Contract Documents.

- 13. MODIFICATION OF BID: The entire bid must be resubmitted on the SIGMA VSS website.
- 14. BID WITHDRAWAL: Except for timely filed claims of mathematical or clerical errors granted by the State, no Bid may be withdrawn within sixty Calendar Days after the Bid Opening time and date or before the Bid expiration date without forfeiting Bid security. The request to withdraw a Bid due to error must be submitted in writing along with the supporting documents within two Business Days after the date of Bid Opening. The claim must describe in detail the error(s), include a signed affidavit stating the facts of the alleged error(s) and request that the Bidder be released from its Bid. The review of the claim and its supporting documents by the State is only for the purpose of evaluating the Bidder's request and must not create duty or liability on the State to discover any other Bid error or mistake. The sole liability of any Bid error or mistake rests with Bidder.
- 15. OBJECTION TO THE AWARD: A Bidder may file a written protest with the Director-DCD to object to the Apparent Low Bidder. This objection must be filed within seven Calendar Days after the date of Bid opening and must describe in detail the basis for the protest and request a determination. The Director-DCD will either dismiss or uphold the protest and notify the protestor within ten Calendar Days after receipt of the written protest.
- 16. BID IRREGULARITIES: The following irregularities on any Bid Form or Bid Form Attachment must be resolved as follows:
 - (a) between SIGMA entry and signed Bid Summary attachment, the signed Bid Summary attachment will be used.
 - (b) between words and figures, the words must be used.
 - (c) between any sum, computed by the Bidder, and the correct sum, the sum computed by the Bidder must be used.
 - (d) between the product, computed by the Bidder, of any quantity and Bid Unit Price and the correct product of the Unit Price and the quantity of Unit Price Work, the product extended by the Bidder must be used.
 - (e) between a stipulated Allowance and the amount entered, the Allowance must be used.
 - (f) any mobilization pay item exceeding the maximum specified must be ignored and the Bid must remain unchanged.
 - (g) if any Bidder fails or neglects to bid a Unit Price for an item of Unit Price Work but shows an "Bid Price" for that item, the missing unit price must be computed from the respective quantity and the Item Bid Price shown.
 - (h) if any Bidder fails or neglects to show a "Bid Price" for an item of Unit Price Work but bids a unit price, the missing Bid Price must remain as "zero"; and
 - if any Bidder fails or neglects to enter a Bid Price in both words and figures, the Bid Price printed or typed, whether in words or figures, must be used.
- **17. CERTIFICATION:** The bidder certifies to the best of its knowledge and belief that, within the past three (3) years, the bidder, an officer of the bidder, or an owner of a 25% or greater interest in the bidder:
 - (a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.
 - (b) Has not had a felony conviction in any state (including the State of Michigan).
 - (c) Has not been convicted of a criminal offense which negatively reflects on the bidder's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid rigging, or a violation of state or federal anti-trust statutes.
 - (d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.
 - (e) Has not been terminated for cause by the Owner.
 - (f) Has not failed to pay any federal, state, or local taxes.
 - (g) Has not failed to comply with all requirements for foreign corporations.
 - (h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.
 - (i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, that in the opinion of DTMB indicates that the bidder is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:
 - 1. The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
 - 2. A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.
 - 3. A finding that the bidder failed to pay the wages and/or fringe benefits due within the time period, as may be required by applicable law.
 - 4. Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).
 - 5. A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, and failure to abate notices that are final orders.
 - 6. A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.

- 7. Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).
- (j) Is not an Iran-Linked Business as defined in MCL 129.312.

A false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

- **18. REJECTION OF BID:** The Bidder acknowledges the right of the Owner to reject any Bids and to waive any informality, defects or irregularity in any Bid received. In addition, the Bidder recognizes the right of the Owner to reject a Bid if:
 - (a) the Bid is in any way incomplete or irregular.
 - (b) the Bidder, Subcontractor or Supplier is not responsible as determined by the Owner.
 - (c) the Bidder's performance as a Contractor was unsatisfactory under a prior Contract with the Owner for the construction, repair, modification, or demolition of a facility with the Owner, or under any other Contract, which was funded, directly or indirectly, by the Owner.
 - (d) there are reasonable grounds for believing that collusion or unlawful agreements exists between any Bidders, that a Bidder is interested in more than one Bid, or that the Bid is not genuine.
 - (e) the Bid exceeds the funds available.
- 19. MATERIALS AND EQUIPMENT SUBSTITUTION: Any Bidder wishing to use manufacturers or materials other than those specified must submit a written request to the Professional not later than seven days before due date for Bids. Request must be accompanied by product data to permit evaluation and comparison with specified products or materials. The Person submitting the request will be responsible for its prompt delivery. The Professional and the Owner will examine and evaluate the product data and if found acceptable, an Addendum will be issued and mailed or delivered to each Person who has received a set of Drawings and Specifications. All Addenda issued must be made a part of the Contract requirements. Contractor will be responsible for any extra work and expense incurred to satisfactorily and completely incorporating each substitute product into the Project.
- 20. MICHIGAN PRODUCTS AND RECYCLED PRODUCTS: All Contractors and Suppliers are encouraged to provide Michigan-made products and/or recycled products and/or green products and/or environmentally friendly products whenever possible where price, quality, and performance are equal to, or superior to, non-Michigan products and the requirements of the Contract Documents. The Contractor will be required to use alternatives to landfills for waste disposal such as reuse or recycle of asphalt, bricks, concrete, masonry, plastics, paint, glass, carpet, metals, wood, drywall, insulation, and any other waste materials to the extent practical.
- 21. PRE-AWARD PRODUCT SUBMITTALS: If requested, the Apparent Low Bidders must submit a summary of preliminary technical data on each product listed in <u>Section 073113 Asphalt Shingles</u>. The Apparent Low Bidders will furnish this summary data to the Professional within forty-eight hours of the Bid Opening. These submittals will be used to evaluate the Bid before the award. Failure to provide the submittals may disqualify the Bid.
- **22. CONTRACT AND CONTRACT AWARD:** The Owner intends to award a Contract to the responsive and responsible best value bidder, except as provided below relative to veteran's preference.
- 22.1 Determination of the lowest three Bidders shall be based on the sum of the Base Bid and any additive and deductive Alternates the Owner accepts, in the order in which they are listed only. The Owner will accept an Alternate only if all other previously listed Alternates are also accepted unless acceptance by the Owner of Alternates in a different order does not affect determination of the lowest three bidders in any way.
- 22.2 The bids will be evaluated for best value based on price and qualitative components by comparing the qualitative components of the three lowest responsive and responsible Bidders. The comparison may also include other Bidders whose bids are within 10% of the lowest responsive and responsible Bidder.
- 22.3 If a Qualified Disabled Veteran meets the requirements of the contract solicitation, provides acceptable responses to both Part One and Part Two of the Best Value Construction Bidder Evaluation to achieve a Best Value recommendation and with the veteran's preference is the lowest responsive, responsible, best value Bidder, the Owner will award the contract to the Qualified Disabled Veteran bidder. A determination as to whether the requirements of the bid solicitation have been met will be based solely on the Owner's and Professional's evaluation of the Bid Summary, Bid Attachments, Bidder-provided documents, and interview.
- 22.4 For the purpose of evaluating and determining the low responsive bid, 10% of the lowest responsive bid (the bid that would otherwise receive the contract award if the preference were not being considered) will be deducted from all QDV bids. If the low responsive QDV bid, less the 10% preference, is less than the lowest responsive bid, then the QDV bid will be declared the official low responsive bid. The original QDV bid amount will be the basis of the contract award.

Example:

Lowest Responsive Bid\$100,000Lowest Responsive QDV Bid\$109,000Preference (10% of the Lowest Responsive Bid)\$10,000

Lowest Responsive QDV Bid Less Preference \$99,000 (\$109,000 - \$10,000)

Official Low Responsive Bid \$109,000

- 22.5 The Apparent Low Bidders will be evaluated for responsiveness and responsibility based on the following:
 - Compliance with the bid specifications and requirements.
 - The Bidder's financial resources.
 - The Bidder's technical capabilities.
 - The Bidder's technical experience.
 - The Bidder's past performance.
 - The Bidder's insurance and bonding capacity.
 - The Bidder's business integrity.

Some qualitative components that may be evaluated are:

- Technical approach.
- Quality of proposed personnel.
- Management plans.
- 22.6 For contracts under \$250,000, best value will primarily be based on the lowest responsive and responsible bid.
- 23. CONTRACT TIME; LIQUIDATED DAMAGES: Work of all trades as specified in the Contract Documents must be completed in 60 calendar days from the date of Notice-to-Proceed except for minor replacement, correction, or adjustment items which do not interfere with the complete operation and utilization of all parts of the Contract Work. This Contract Time is of the essence and liquidated damages for each Calendar Day that expires after this Substantial Completion of the entire Work must be in the amount of \$200. Liquidated damages are not a penalty, are cumulative and represent a reasonable estimate of the Owner's extra costs and damages, which are difficult to estimate with accuracy in advance.
- **24. MOBILIZATION:** If used in the Specifications/Bid schedule, all the up-front costs incurred by the Contractor must be covered by the mobilization. The costs to establish temporary site offices, to obtain required permits for commencing the Work and for bonds and insurance premiums are examples of costs to the Contractor that are covered by mobilization pay item. This cost must not exceed four percent (4%) of the Base Bid, unless otherwise expressly provided in the Bidding Documents.
- 25. SOIL EROSION AND SEDIMENTATION CONTROL: All Work under this Contract must meet the storm water management requirements of the Project and comply with the applicable Soil Erosion and Sedimentation Control (SESC) rules and regulations and specific provisions for same within the Contract Documents. SESC measures will be monitored and enforced by the State Facilities Administration, or another authorized enforcing agency if so delegated, through the review of the Contractor's implementation plans and site inspections. State Facilities Administration or the Professional will notify the Contractor in writing of any violation(s) of the applicable SESC statutes and/or the corrective action(s) undertaken by the Owner and may issue stop work orders. State Facilities Administration has the right to assess a fine to the Contractor for noncompliance with the provisions of the Contract Documents and/or SESC regulations applicable to this Work and fines must be in addition to any other remediation costs or liquidated damages applicable to the Project and may exceed the value of the Contract.

END OF SECTION 00100

SECTION 00120 SUPPLEMENTARY INSTRUCTIONS - Not Used.

END OF SECTION 00120

SECTION 00200 INFORMATION FOR BIDDERS

1. UNDERGROUND UTILITIES

Information or data about physical conditions of existing Underground Utilities, which have been used by the Professional in preparing the Bidding Documents, is shown, or indicated in the Drawings and technical Specifications.

2. PERMITS, APPROVALS, LICENSES AND FEES

2.1 If the Owner has secured or will secure any permits, approvals and licenses and has paid or will pay any associated charges and fees, any such permits, approvals and licenses are itemized in this paragraph: **None provided by the Owner.**

2.2 If any permits, approvals, and licenses itemized above have been obtained by the Owner and the fees have been paid, copies of those permits, approvals, licenses, and corresponding fee receipts, are attached to this Section 00200 Information for Bidders.

Except for any permits, approvals, licenses, and fees identified above, the **Contractor shall be responsible for all permits**, approvals, licenses, and fees applicable to Work.

3. SEQUENCING REQUIREMENTS

Refer to the technical Specifications, including, but not limited to the General Requirements, for information, data, and criteria on sequences of Work restraints, construction, and maintenance of service to existing facilities, which, if provided, must govern the selection of Work sequences. Each Bidder must be responsible for any conclusions or interpretations the Bidder makes related to the selection of sequences and Means and Methods, based on the technical data made available, and/or those additional investigations or studies made or obtained by that Bidder.

END OF SECTION 00200

SECTION 00700 GENERAL CONDITIONS

- 1. Interpretations: Any requests for clarifications or interpretations of the Contract Documents must be in writing to the Professional, who will issue written clarifications or interpretations as appropriate. If the Contractor believes that such clarification or interpretation justifies an adjustment to the Contract Price/Time, the Contractor must promptly notify the Professional in writing before proceeding with the Work Involved.
- 1.1 **Standards**: The Contract Documents describe the entire Work. The provisions of the Contract Documents must govern over any standard specifications, manual or code of any technical society, organization, or association but, if lower than the standards set by any Law applicable to the Work or the Project, the higher standards must govern. The Contractor's responsibilities extend to cover Subcontractors and Suppliers if liable as a result of their actions or obligations.
- 1.2 **Contract Time Computation**: The time to complete the Work must be made in Calendar Days and must include both the first and last day. The first day is established by the Notice-to-Proceed.
- 1.3 **Technical Specifications and Priority:** The following applies whenever priority is called for in Contract Documents: specifications must govern Drawings; figured dimensions must govern scaled dimensions; detail drawings must govern general drawings; Drawings must govern Submittals.
- 1.4 Indemnification: The Contractor is required to defend, indemnify and hold harmless the Owner and the Professional, their employees, agents, servants, and representatives from and against all claims, suits, demands, actions of whatever type and nature and all judgments, costs, losses and damages, whether direct, indirect or consequential including, but not limited to, charges of architects, engineers, attorneys and others and all court, hearing and any other dispute resolution costs arising from:
 - (a) any patent or copyright infringement by the Contractor.
 - (b) any damage to the premises or adjacent lands, areas, properties, facilities, rights-of-way, and easements, including loss of use to the business and property of others as a result of Contractor's operations.
 - (c) any bodily injury, sickness, disease or death, or injury to or destruction of property, including loss of use due to or related to the Work and caused in whole or in part by the Contractor or Subcontractor or Supplier's negligence, omissions, or failure to maintain the required insurance and coverage and,
 - (d) a failure by the Contractor to appropriately handle Hazardous Materials for the Work or the Contractor's operations in compliance with the Owner requirements and/or applicable Laws and regulations.

The indemnification obligations are not affected by the limitation on the amount and types of damages, compensation or benefits payable by or for the Contractor or Subcontractor or Supplier under worker's or workman's compensation acts, disability benefit acts or other employee benefit acts.

1.5 Contract Documents Ownership: The State is the owner of the Contract Documents. The Contractor, Subcontractor or Supplier must not reuse any of the documents on any other Project without prior consent of the State and Professional. The Professional will furnish on behalf of the Owner at no cost to the Contractor, one (1) electronic copy of the Drawings and Project Manual. If the Contractor, or the Contractor's Subcontractors or Suppliers request hard copy sets, reproduction of these documents will be the responsibility of the Contractor.

2. GENERAL PROVISIONS

2.1 Owner: The Project Director and/or Owner Field Representative will represent the Owner. Neither the Project Director nor the Owner Field Representative has the authority to interpret the requirements of the Contract Documents or to authorize any changes in the Work or any adjustment in Contract Price/Time. The State will provide the necessary easements for permanent structure and permanent changes in existing lands, areas, properties, and facilities. However, the Contractor must obtain, at no

increase in Contract Price/Time, permits for any other lands, areas, properties, facilities, rights-of-way, and easements required by the Contractor for temporary facilities, storage, disposal of soil or waste material or any other purpose. The Contractor must submit copies of the permits and written agreements to the Owner. The Contractor must engage a registered land surveyor to establish the necessary reference points and/or base lines for construction and must be responsible for protecting them including benchmarks and Project elevations.

- 2.2 Professional: Acting as the Owner's representative during the Contract Time period, the Professional will endeavor to guard the Owner from Defective work and to keep the Owner informed of the progress of the Work. Unless delegated by specific written notice from the Owner, the Professional and the Professional's representatives do not have the authority to authorize any changes in the Work or any adjustment in Contract Price/Time. The On-site Inspections by the Owner Field Representative and/or the Professional do not relieve the Contractor from its obligation to provide the Work in accordance with the Contract Documents or represent acceptance of Defective Work.
- 2.3 Contractor: The Contractor must manage, supervise, and direct the Work competently, applying the management, supervision, skills, expertise, scheduling, coordination, and attention necessary to provide the Work in accordance with the Contract Documents with a minimum disturbance to or interference to the business operations on site or adjacent properties. The Contractor must assign and maintain a competent full-time superintendent on the Work, as its representative, at all times while Work is being done on site and must not be replaced without the Owner's consent. The Contractor shall enforce good order among its employees and shall not employ on the work any disorderly, intemperate, or unfit persons, or not skilled in the work assigned to them. The Contractor is solely responsible for his Means and Methods, safety precautions and programs related to safety, the Contractor's failure to execute the Work in accordance with the Contract Documents and any act of omissions by the Contractor, Subcontractor or Supplier. The Contractor must compare Contract Documents for conflicts, unworkable or unsafe specified Means and Methods and verify against manufacturer's recommendations for installations and handling and must notify the Professional in writing of the discovery of any such conflicts or errors. The Contractor is required to furnish certifications that lines and grades for all concrete work were checked before and after placing concrete, and that final grades are as required by the Contractor Documents. Wherever required, the Contractor must be responsible for all cutting, fitting, drilling, fixing-up, and patching of concrete, masonry, gypsum board, piping and other materials that may be necessary to make in-place Work and dependent Work fit together properly. The Contractor must restore to pre-existing conditions all walks, roadways, paved or landscaped areas and other real and personal property not designated for alteration by the Contract Documents. The Contractor must maintain at the site one copy of safety data sheets (SDS) and one copy of all as built/Record Documents in good order and annotated in a neat and legible manner to show:
 - (a) all revisions made,
 - (b) dimensions noted during the furnishing and performance of the Work, and
 - (c) all deviations between the as-built installation and the Contract Documents, all approved Submittals and all clarifications and interpretations.

The Contractor must maintain and furnish promptly to the Owner and the Professional upon their request **daily field reports and photos** recording the on-site labor force and equipment (Contractor and Subcontractors); materials/equipment received; visits by Suppliers; significant in-progress and completed trade Work within major areas; and other pertinent information. The Contractor is obligated to act to prevent threatened damage, death, injury, or loss without any special instruction in **emergencies** and must give the Owner prompt written notice of any changes in Work resulting from the action taken for review and approval.

- 2.4 Subcontractors and Suppliers: The Owner assumes no contractual obligations to anyone other than the Contractor. All trade construction Drawings must be field coordinated before fabrication and/or installation. The Owner reserves the right to reject or revoke, for its convenience, any approved Subcontractor/Supplier. Work performed by any Subcontractor or Supplier must be through an appropriate written agreement that:
 - (a) expressly binds the Subcontractor/Supplier to the requirements of the Contract Documents,
 - (b) requires such Subcontractor or Supplier to assume toward the Contractor all the obligations that the Contractor assumes toward the Owner and the Professional, and
 - (c) contains the waiver of rights and dispute resolution provisions.
- 2.5 Access to Payroll Records: The Contractor and its Subcontractors must, to the extent applicable, comply with the Prevailing Wage Rates for the county where the Project is located, and must maintain and keep, in accordance with generally accepted accounting principles, records pertaining to the bidding, award and performance of the Work, including, but not limited to certified payroll, employment records and all data used in estimating the Contractor's prices for the Bid, Change Order, proposal or claim. The Owner or its representative must have access to those records, must have the right to interview the Contractor's employees and must be provided with appropriate facilities for the purpose of inspection, audit/review and copying for five years after final payment, termination, or date of final resolution of any dispute, litigation, audit exception or appeal. The payroll and other employment records of workers assigned to the site must contain the name and address of each worker, correct wage classification, rate of pay, daily and weekly number of hours worked, deduction made, and actual wages paid. The Contractor must maintain records that show: (a) the anticipated costs or actual costs incurred in providing such benefits, (b) that commitment to provide such benefits is enforceable, and (c) that the plan or program is financially responsible and has been communicated in writing to the workers affected.

3. Bonds and Insurance:

3.1 Both the Performance Bond and Payment Bond must remain in effect from the date of Contract Award until final completion of the Work or the end of Correction Period, whichever comes later. The surety bonds required for a Construction Contract will not be accepted by SFA unless the surety bonding company is listed in the current United States Government, Department of Treasury's, Listing of approved sureties (bonding/insurance companies), Department Circular 570. Copies of the current Circular listing may be obtained through the internet web site https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm.

Insurers must have an "A-" A.M. Best Company Rating and a Class VII or better financial size category as shown in the most current A.M. Best Company ratings. Insurance must be provided by insurers authorized by the Department of Insurance and Financial Services (DIFS) to do business as an insurer in Michigan. The insurance company and must attach evidence of the authorization. These certificates must specify the Project File No., Funding Code., Project Title, and a description of the Project. The Contractor agrees that insurance coverage afforded under the policies as such coverage relate to the State under this Contract as determined by the Contractor will not be modified or canceled without at least thirty calendar days prior written notice to the State. The latest A.M. Best's Key Ratings Guide and the A.M. Best's Company Reports (which include the A.M. Best's Ratings) are found at: http://www.ambest.com. The Contractor must not perform any part of the Work unless the Contractor has all the required insurance in full force and effect.

3.2 The Contractor is required to provide proof of the minimum levels of insurance coverage as indicated below. The purpose of this coverage must be to protect the State from claims which may arise out of or result from the Contractor's performance of services under the terms of this Contract, whether such services are performed by the Contractor, or by any subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

The Contractor waives all rights against the State for recovery of damages to the extent these damages are covered by the insurance policies the Contractor is required to maintain pursuant to this Contract. The Contractor also agrees to provide evidence that all applicable insurance policies contain a waiver of subrogation by the insurance company.

All insurance coverages provided relative to this Contract/Purchase Order is PRIMARY and NON-CONTRIBUTING to any comparable liability insurance (including self-insurances) carried by the State.

The Insurance must be written for not less than any minimum coverage herein specified or required by law, whichever is greater. All deductible amounts for any of the required policies are subject to approval by the State.

The State reserves the right to reject insurance written by an insurer the State deems unacceptable.

BEFORE THE CONTRACT IS SIGNED BY BOTH PARTIES and BEFORE THE PURCHASE ORDER IS ISSUED BY THE STATE, THE CONTRACTOR MUST FURNISH TO THE DIRECTOR-DCD CERTIFICATE(S) OF INSURANCE VERIFYING INSURANCE COVERAGE. THE CERTIFICATE MUST BE ON THE STANDARD "ACCORD" FORM. THE CONTRACT OR PURCHASE ORDER NUMBER MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING. All such Certificate(s) are to be prepared by the Insurance Provider and not by the Contractor. All such Certificate(s) must contain a provision indicating that coverages afforded under the policies WILL NOT BE CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED without THIRTY days prior written notice, except for 10 days for non-payment of premium, having been given to the Director-DCD Such NOTICE must include the CONTRACT NUMBER affected and be mailed to the Project Director.

The Contractor is required to provide the type and amount of insurance below:

(a) Commercial General Liability Insurance with a limit of not less than \$1,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it must apply separately to this project.

The Contractor must list the State, its departments, divisions, agencies, offices, commissions, officers, employees, and agents as ADDITIONAL INSUREDS on the Commercial General Liability policy.

(b) Vehicle Liability Insurance for bodily injury and property damage as required by law on any auto including owned, hired, and non-owed vehicles used in the Contractor's business.

The Contractor must list the State, its departments, divisions, agencies, offices, commissions, officers, employers, and agents as ADDITIONAL INSUREDS on the vehicle liability policy.

(c) Worker's disability compensation, disability benefit or other similar employee benefit act with minimum statutory limits.

NOTE:

- (i) If coverage is provided by a State fund or if Contractor has qualified as a self-insurer, separate certification must be furnished that coverage is in the state fund or that Contractor has approval to be a self-insurer.
- (ii) Any citing of a policy of insurance must include a listing of the States where that policy's coverage is applicable; and
- (iii) This provision must not be applicable where prohibited or limited by Michigan law.
- (d) Employer's Liability Insurance with the following minimum limits:

- \$1,000,000 each accident
- \$1,000,000 each employee by disease
- \$1,000,000 aggregate disease
- (e) Pollution Liability Insurance in the amounts of not less than \$1,000,000 per occurrence is required.
- 3.3 Liability Insurance: Liability insurance must be endorsed to list as additional insureds the Professional's consultants and agents. Worker's Compensation, Employer's Liability Insurance and all other liability insurance policies must be endorsed to include a waiver of rights to recover from the Owner, Professional and the other additional insureds. The Contractor's liability insurance must remain in effect through the Correction Period and through any special correction periods. For any employee of the Contractor who is resident of and hired in Michigan, the Contractor must have insurance for benefits payable under Michigan's Worker's Compensation Law. For any other employee protected by Worker's Compensation Laws of any other state, the Contractor must have insurance or participate in a mandatory state fund, where applicable, to cover the benefits payable to any such employee. These requirements must not be construed to limit the liability of the Contractor or its insurers. The Owner does not represent that the specified coverage or limits of insurance are sufficient to protect the Contractor's interests or liabilities.
- 3.4 **Builder's Risk Insurance:** Unless indicated otherwise in the bid document, the Contractor will purchase and maintain property insurance for 100% of actual cash replacement value of the insurable Work while in the course of construction, including foundations, additions, attachments, and all fixtures, machinery and equipment belonging to and constituting a permanent part of the building structures. The property insurance also will cover temporary structures, materials and supplies to be used in completing the Work, only while on the building site premises or within five hundred feet of the site. The property insurance insures the interests of the Owner, Contractor and all Subcontractors and Suppliers at any tier as their interest may appear. The property insurance insures against "all risk" of physical loss or damage to the extent usually provided in policy forms of insurers authorized to transact this insurance in Michigan. A copy of the master insurance policy will be available for review by the State, upon request. Any deductible shall be both the option and responsibility of the **Contractor**.
- 3.5 The Owner and Contractor intend that the required policies of property insurance must protect all the parties insured and provide primary coverage for all losses and damages caused by the perils covered. Accordingly, to the extent that the insurance company pays claims, the Owner and the Contractor and its Subcontractors/Suppliers waive all rights against each other for any such losses and damages and waive all such rights against the Professional and all other persons named as insureds or additional insureds.

4. Prosecutions; Substantial Completion:

- 4.1 The Contractor must not start the Work at the site before the first day established by the Notice to Proceed and/or before all insurance is in effect. A pre-construction conference will be held with the Contractor to review its Progress Schedule, qualifications of its key personnel, its proposed access to the site, traffic and parking, procedures for submittal, change orders, etc., and to exchange emergency contact information. The Contractor must use its accepted Progress Schedule when making proposals or claims for adjustment in Contract Time/Price.
- 4.2 Except in an Emergency, all Work at the site must take place during normal working hours; 6:00 AM to 6:00 PM, during Business Days and in accordance with the special working conditions for the Agency. If the Contract Documents allow work outside the normal hours, the Contractor must provide a written notice to the Owner twenty-four hours before performing such Work and must reimburse the Owner any related increase in the costs incurred by the Owner such as overtime charges of the Professional and payments for custodial and security personnel.
- 4.3 If, upon inspection and completion of all pre-requisite testing of the Work, the Contractor considers that a portion of the work or all the Work is substantially completed, it must provide a list of items to be corrected or completed to the Owner and the Professional for joint inspection. Within ten Calendar Days of this joint inspection, the Professional will deliver to the Owner and Contractor a list of incomplete/Defective work or a Certificate of Substantial Completion with a Punch List. The certificate must:
 - (a) fix a reasonable date of Substantial Completion,
 - (b) fix a date for completion of the Punch List, and
 - (c) recommend the division of responsibilities between the Owner and Contractor for utilities, security, safety, insurance, maintenance, etc.

Upon issuing the Certificate of Substantial Completion, the Owner will pay for the completed Work subject to (a) withholding of two hundred percent of the value of any uncompleted Work, as determined by the Professional, and (b) any other deductions as the Professional may recommend or may withhold to cover Defective work, liquidated damages and the fair value of any other items entitling the Owner to a withholding. Prerequisites for Substantial Completion, over and above the extent of Work completion required, include (a) receipt by the **Owner** of operating and maintenance documentation, (b) all systems have been successfully tested and demonstrated by the **Contractor** for their intended use, and (c) the **Owner** having received all required certifications and/or occupancy approvals from the State and those Political Subdivisions having jurisdiction over the Work. Receipt of all certifications and/or occupancy approvals from those Political Subdivisions with jurisdiction in and of itself does not necessarily connote Substantial Completion. The Contractor must provide all related operating and maintenance (O&M) documentation to the Owner before training if training is required and not later than Substantial Completion otherwise. The Contractor must give the Owner the final O&M documentation (with revisions made after Substantial Completion) before the request for final payment.

- 4.4 The Owner may decide to use, at its sole option, any functioning portion of the Work and will inform the Contractor in writing of the decision. The portion of Work to be used must be jointly inspected to determine the extent of completion if it has not undergone the inspection for Substantial Completion. The Professional must prepare a list of items to be corrected/completed and the Owner will allow the Contractor reasonable access to correct/complete the listed items and finish other work.
- 5. Warranty; Tests, Inspections and Approvals; Corrections of Work:
- 5.1 **Warranty:** The Contractor must furnish the State with a written guarantee to remedy any defects due to faulty materials or labor which appear in the Work within one year from the date of final acceptance by the State. This warranty excludes defect or damage caused by (a) abuse, modification by others, insufficient or improper operation or maintenance, or (b) normal wear and tear under normal usage. Manufacturer warranties for materials and equipment received by the Contractor must be assigned and promptly delivered to the Owner at Substantial Completion. The warranties period starts from the date of the substantial completion and must be in full force and effect for the entire duration of the Correction Period.

Roof Warranty: For roofing systems, the following warranties are required as minimum:

- (a) A two-year contractor's warranty against any defects due to faulty materials or labor.
- (b) A fifteen-year manufacturer's total system warranty; and
- (c) A twenty-year membrane/shingles/tiles warranty.
- 5.2 **Tests, Inspections and Approvals:** The Owner will perform or retain a professional/agency to perform inspections, tests or approvals for those materials required to meet quality control standards specified in the Contract Documents except for those inspections, tests or approvals specifically designated to the Contractor in the Contract Documents. However, the Contractor must assume full responsibility for any testing, inspection, or approval
 - (a) required to meet code requirements, as promulgated by code inspecting authorities.
 - (b) required by Law.
 - (c) indicated or required by the Contract Documents as designated to the Contractor.
 - (d) required for the Professional's acceptance of a Supplier, materials or equipment or mix designs submitted for prior approval by the Contractor; or
 - (e) Defective work, including an appropriate portion of the Delay and costs occasioned by discovery of Defective work. The Contractor must (a) pay all related costs; (b) schedule related activities; and (c) secure and furnish to the Professional the required certificates of inspection, testing or approval. The Contractor must provide proper and safe access to the site for inspection, testing or approval. The Contractor must provide the Professional a timely notice whenever any Work is ready for inspection, testing or approval. If the Contractor covers any Work without proper approval by the Professional as required by the Contract Documents, the Contractor must, at its own expense, uncover, expose, or otherwise make available, when requested by the Professional or Owner, for testing, inspection, or approval of the covered Work.
- 5.3 Correction of Work: If any testing, inspection, or approval reveals Defective Work and the Work is rejected by the Professional, the Contractor, at its sole expense, must promptly, as directed, correct, or remove the Defective Work from the site and replace it with non-Defective Work within the Correction Period. The Contractor must bear responsibility for its proportionate share of the Delay and costs resulting from the correction and/or removal and replacement of Defective Work. If the Contractor, within reasonable and agreed upon time after receipt of written notice, (a) fails to correct Defective Work or remove and replace rejected Work, or (b) fails to correct or complete items on any Punch List, or (c) fails to perform Work in accordance with the Contract Documents, or (d) fails to comply with any other provision of the Contract Documents, the Owner, directly or through others, after seven Calendar Days from the date of the written notice to the Contractor, may correct and remedy the Defective Work. To the extent necessary to correct and remedy such Defective Work, the Owner must be allowed to exclude the Contractor from all or part of the site; take possession of all or part of the Work and stop related operations of the Contractor; take possession of the Contractor's tools, plant and office and construction equipment at the site; and incorporate into the Work materials and equipment for which the Owner has paid the Contractor. The Contractor must allow the Owner and the Professional easy access to the site to correct such Defective Work. The Owner must be entitled to an appropriate decrease in Contract Price for all claims, costs, losses, damages, and Delay incurred or sustained by the Owner which are attributable to the Contractor. Such costs may include, but not limited to, costs of correction or removal and replacement of Defective Work, costs of repair and replacement of other work destroyed or damaged by the action and related charges of the Professional. If the discovery of the Defective Work takes place after final payment and the Contractor fails to correct and pay the Owner any of these costs, the Owner must demand due performance under the Performance Bond. Until the period of limitation provided by Michigan Law, the Contractor must promptly, and upon receipt of written notice from the Owner, correct Defective Work. In the event of an Emergency or unacceptable risk of loss or damage or if appropriate under the circumstances, the Owner, directly or through others under contract with the Owner, may correct or remove and replace the Defective Work. The specified correction of Work requirements has no limitation on the rights of the Owner to have Defective Work corrected or removed and replaced, if rejected, except as otherwise provided by the Michigan Law.
- 5.4 **Special Correction Period Requirements:** Whenever the Owner undertakes any portion of the Work because the Contractor's act or omission Delays completion of the Work or it is eligible for Partial Use, the warranties for all materials and equipment incorporated into that portion of the Work must remain in full force and effect between the start of such Partial Use and the date when the Correction Period starts. The Correction Period for any Defective Work that is corrected or rejected and replaced within

the last three months of the Correction Period must be extended by an additional six months, starting on the date such Work was made non-Defective.

5.5 **Special Maintenance Requirements:** If the Contract Documents specify that the entire Work, or a portion of the Work, upon reaching Substantial Completion, must not be placed in use by the Owner, the Contractor must maintain the Work, or specified part of the Work, in good order and proper working condition and must take all other actions necessary for its protection between the certified date of Substantial Completion and the date when the Work, or designated part of the Work, is placed in use. If no separate price for such special maintenance period was requested and made part of the Contract Documents, the Owner will amend the Contract Documents to appropriately increase the Contract Price.

6. Changes:

- 6.1 **Changes in the Work:** The Owner may, at any time, without notice to sureties, make any changes bilaterally or unilaterally, by a written Change Order, in the Work within the general scope of the Contract, including but not limited to changes in the Specifications, materials, or Contract Time. In a bilateral change order, the Owner may direct the Professional to prepare a Bulletin describing the change being considered. Upon receiving the Bulletin, the Contractor establishes the cost and returns it to the Professional for review within 15 calendar days. The Contractor's proposal must be irrevocable for 60 Calendar Days after it is submitted to the Professional. If the Professional recommends acceptance of the Bulletin and the Owner agrees with the changes, the Owner issues a written bilateral Contract Change Order to amend the Contract Documents. However, the Owner may issue a unilateral Change Order if the Owner and Contractor are unable to agree on the adjustment in Contract Price or Time. If the Contractor disagrees with such unilateral Contract Change Order, the Contractor must complete the Work and may deliver notice of a claim in accordance with the claim submittal process.
- 6.2 Differing Site Condition: The Owner does not warrant that any technical data, including the Project reference points, provided by the Owner is necessarily sufficient and complete for the purpose of selecting Means and Methods, initiating, maintaining, and supervising safety precautions and programs or discharging any other obligation assumed by the Contractor under the Contract Documents. If different or unknown site conditions are discovered, the Contractor must notify the Owner in writing before the conditions are disturbed or before proceeding with the affected Work. Upon review, if the Owner decides to agree with the differing site conditions, with the Professional's advice, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process. If the Owner decides to disagree with the Contractor and the Contractor disagrees with the Owner's decision, the Contractor must complete the Work and may deliver notice of a claim in accordance with the claim submittal process. No proposal or claim by the Contractor due to differing site conditions will be allowed (a) if the Contractor knew of their existence before submitting its Bid or if those conditions could have been discovered by any reasonable examinations for which the Contractor, as Bidder, was made responsible under the Bidding Requirements and/or (b) unless the Contractor's written notice is provided within not more than 21 days after the contractor first recognizes the condition giving rise to the proposal or claim and gives the Owner adequate opportunity to investigate the asserted differing site conditions. A full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with the initial notice shall be delivered to the Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time.
- **6.3 Responsibilities for Underground Utilities:** The Contractor must comply with the 1974 PA 53, as amended, MCL 460.701 et seg., and all other Laws concerning Underground Utilities. Before performing site Work, all Underground Utilities, lines, and cables (public and private) must be located and marked. The Contractor must notify MISS DIG to locate and mark utilities on properties that are not State properties. In addition, the Contractor must be responsible for immediately notifying the Owner of any contact with or damage to Underground Utilities, and for the safety, protection of and repairing any damage done to any Work, surface, and subsurface facilities. If the Contractor encounters Underground Utilities that inaccurately located by the Contract Documents or not previously located/marked, which could not be reasonably have been seen, the Owner may issue a written Contract Change Order to amend the Contract Price or Time through the Bulletin authorization process.
- 6.4 Hazardous Material Conditions: If the Contractor encounters material reasonably believed to be Hazardous Material, which was not described in the Drawings and/or Specifications and was not generated or brought to the site by the Contractor, the Contractor shall immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions in accordance with all federal, state, and local laws. Upon receipt of the notice, the Owner will investigate the conditions and (a) may stop the Work and terminate the affected Work or the Contract for convenience; (b) may contract others to have the Hazardous Material removed or rendered harmless or (c) issue a written Contract Change Order to amend the Contract Price/Time through the Bulletin authorization process. If the Hazardous Material is brought to site by the Contractor or as a result in whole or in part from any of its violation of any Law covering the use, handling, storage, disposal of, processing, transport and transfer or from any other act or omission within its control, the Contractor is responsible for the Delay and costs to clean up the site, remove and render harmless the Hazardous Material to the satisfaction of the Owner, State and all Political Subdivisions with jurisdiction.
- **6.5 Incidents with Archaeological Features:** The Contractor must immediately notify the Owner in writing of any Archaeological Feature deposits encountered at the site and must protect the deposits in a satisfactory manner. If the Contractor encounters such features, which result in an anticipated change to the Contract Price/Time, the Owner may issue a written Contract Change Order through the Bulletin authorization process.

- **6.6 Unit Price Work:** Quantities as listed have been carefully estimated but are not guaranteed. The Owner reserves the right to increase or decrease the quantities of the Work to be performed at the Unit Price by amounts up to 20 percent of the listed estimated quantities. For Unit Price Work, the Contractor must promptly inform the Professional in writing if actual quantities differ from the estimated quantities for any item. For quantities over 120% or below 80% of the estimated quantity, the Owner may negotiate a Unit Price with the Contractor, or direct a unilateral change, or bid that Work under separate contract. Any adjusted Unit Price agreed upon by the Owner will only apply to the actual quantities above 120% or below 80% of the estimated quantity. No adjustment due to quantity variations must be allowed (a) unless the Contractor met the notice requirements, or (b) if any Unit Price increase results in whole or in part from any act or omission within the control of the Contractor (errors in the Contractor's Bid, unbalanced Unit Prices, etc.). If a dispute arises between the Owner and the Contractor on the adjusted Unit Price, the Contractor must carry on the Work with due diligence during the disputes/disagreements.
- **6.7 Cash Allowances; Provisionary Allowances:** The Contractor must obtain the Professional's and Project Director's written acceptance before providing materials, equipment, or other items covered by Cash Allowance. Work authorized under any Provisionary Allowance may consist of (a) changes required by actual conditions, as determined by the **Professional**, and (b) any other Work authorized and completed under the pertinent provisions of the Contract Documents.

6.8 Changes in Contract Price:

- 6.8.1 The Contractor's proposals or claims for Work Involved must detail all affected items of Work, whether increased, revised, added, or deleted, and must be fully documented and itemized as to (a) individual adds and deducts in Work quantities and labor manhours; (b) corresponding itemized cost of Work Involved; (c) materials and equipment cost including transportation, storage, and suppliers' field services; and (d) Fee.
- 6.8.1.1 No proposal or claim by the Contractor on account of any asserted change not issued as a Bulletin by the PSC or Owner, shall be allowed unless initiated by written notice of such proposal or claim to the Professional and Owner within 21 days after the occurrence of the event giving rise to the proposal or claim. A full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with the initial notice shall be delivered to the Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time.
- 6.8.2 For Contractor's proposals or claims for adjustments in Contract Price arising from Delays, the Contractor's estimates must be as comprehensive and detailed as may be appropriate to support the proposal or claim. Examples of related information include labor manpower levels, production data and Progress Schedule revision.
- 6.8.3 If the Contract Documents use lump sum or Unit Prices for the Work Involved, those prices must be used in estimating the price change. Otherwise, the Owner may direct the Contractor to proceed (a) on a negotiated lump sum; or (b) on an actual cost basis with or without a guaranteed maximum; or (c) through a unilateral Change Order on a lump sum basis or a not-to-exceed basis, based on the Professional's estimate of the anticipated Cost of the Work Involved and a fee. Items making-up the Cost of the Work Involved must be allowable to the extent (a) consistent with those prevailing in the Project locality, (b) necessary, reasonable, and clearly allocable to the Work Involved, and (c) limited to labor costs, subcontract costs, material and equipment costs, construction equipment costs and general conditions costs.
- In estimating any additional cost by the Contractor or its Subcontractor, the rates for the craft labor man-hour used in estimating changes in Contract Price must not exceed the rates in Means Cost Data (Means) or other cost guide acceptable to the Owner. If the rates exceed the acceptable cost guides, the Contractor must provide proper justifications acceptable to the Professional and the Owner. The payroll costs may be used to quote a Bulletin. However, the payroll costs must include wages, labor burdens and a factor for field supplies and purchase costs (less market values if not consumed) of tools not owned by the workers. Labor burdens must be certified by an authorized financial representative of the Contractor and may include social security, unemployment, taxes, workers' compensation, health and retirement benefits, vacation, and holiday pay. The factor for field supplies and tools (individually valued at less than \$1,000.00) must not exceed 4% of the wages without burdens, unless detailed data, which supports higher costs, is provided. Rates for owned, rented, or leased construction equipment must be in accordance with the contract price rates. Otherwise, the appropriate hourly, daily, weekly, or monthly rates listed in Means must be used. However, if the total rental or lease cost of an item to the Project exceeds the reasonable purchase price of the rented or leased item, the Owner reserves the right to pay only the purchase price of the item and take title to the item. Operating cost must not exceed the hourly operating rate in Means and for multiple shifts, rates must not exceed the shift work adjustments recommended in the cost guide.
- 6.8.5 The cost of any Work Involved may include necessary general conditions costs to the extent those costs increase or decrease on account of, or are directly attributable to, the performance of the furnishing and/or performance of the additional Work Involved or are required due to an extension in Contract Times or Delays. Such costs may include payroll costs of personnel, temporary facilities at the site, liability insurance and bond premiums, Subcontractors, royalty payments and fees for permits and licenses and taxes on the Work Involved.
- 6.8.6 A contractor or subcontractor who performs the Work may charge a fee of up to 15% of the cost of Work involved for overhead and profit. Contractor may charge a mark-up fee of up to 5% of its Subcontractor's cost excluding fees if the Work is performed by the Subcontractor. If Work is to be performed by lower tier subcontractor(s), intermediate subcontractors and the Contractor must share a fee of up to 5% of the lowest tier subcontractor's cost excluding fees. The total mark-up fees for the Work must not exceed 20% of the lowest tier subcontractor's cost excluding fees. If the adjustment to the Contract Price incorporates a

contractor reservation of rights to claim additional adjustments, the fees must be reduced by one-third. Contractor's administrative costs and home office overhead must be non-reimbursable expenses covered by the Fee for the Work.

6.9 Changes in Contract Time:

- 6.9.1 If a justified extension beyond the Contract Time is not reasonably anticipatable under the circumstances, the Owner may approve an extension to the Contract Time through the Bulletin authorization process at no additional cost to the Owner. Examples of events that may justify an extension in the Contract Time include acts of God; acts of the public enemy; fires; floods; and strikes.
- 6.9.2 If, at any time during the life of this Contract, the Contractor finds that for reasons beyond its control, it will be impossible to complete the Work on or before the Contract completion date, a written request for a change to the Contract extending the time of completion must be submitted. Such a request must set forth in precise detail the reasons believed to justify an extension and must be in such format as the State may require.
- 6.9.3 When submitting a quotation for a Contract change authorization for extra work or change in plans, the Contractor must include as part of the quotation, a statement requesting any extra time necessary to complete the related Work. Lack of such a statement will serve as notification that the extra time will not be required to complete the Contract work and will waive the right to a later claim. The Owner will not pay additional compensation to the Contractor for performing Contract Work during any extension period granted.
- 6.9.4 If the Progress Schedule and the funding allow for an early completion date, the Contractor may submit to the Owner for approval, a request to shorten the Contract Time. If approved by the Owner, the new Contract Time applies to the Project and liquidated damages, if any, will be assessed for any delays after the new completion date.
- 6.10 Price Reduction for Defective Cost or Pricing Data: Whenever the Contractor signs a proposal for a change in the Contract or claim settlement, the Contractor will be deemed to have certified on behalf of itself, Subcontractors and Suppliers, to its best knowledge and belief that the proposal and its contents (a) were made in good faith and are consistent with the facts and the provisions of the Contract; and (b) are current, complete, and accurate. If the Contract Price/Time is increased by any Change Order, claim or dispute settlement because the Contractor, Subcontractor or Supplier, at any tier, represented or furnished cost or pricing data of any kind that were false, contained math errors or were incomplete, the Contract Price must be correspondingly reduced by Change Order. If there is a good cause to doubt the Contractor's compliance with the Defective cost and pricing data requirements, the Owner must be entitled to make an appropriate withholding from any payment otherwise owed to the Contractor.

7. Payments

- 7.1 **Schedule of Values:** The Schedule of Values must be approved by the Professional and accepted by the Owner and must divide the Work into pay items for significant Sections and areas, facilities, or structures, with subtotals for first tier Subcontractors. As required or as noted in Division 1, the accepted Schedule of Values must be supported by a more detailed breakdown allocating the pay items to the Progress Schedule Activities. It must tabulate labor costs, Subcontract costs and material and equipment costs. Labor costs must include appropriate sums for construction equipment costs, general conditions costs, administrative costs, and profit, unless separate pay items are itemized for those costs. The Schedule of Values must include two percent of the Contract Price for each of the following close-out pay items: (a) fire safety inspection, certificate of occupancy and other code approvals, as specified in the Contract Documents, (b) manufacturer warranties, finalized operating and maintenance documentation, Owner training documentation, and test and balance reports, and (c) finalized as built/Record Documents.
- 7.2 Requests for Payment: Not more than once every thirty Calendar Days, the Contractor may submit to the Professional a Request for Payment on the Owner's form signed by the Contractor certifying Work completed and enclosing all supporting documentation. A draft copy of the payment request must be submitted to the Owner Field Representative for review and comments. For projects under \$50,000, the Contractor may not submit more than two requests in addition to the final payment request. Each Request for Payment must certify that all monies owed by the Contractor to Subcontractors and Suppliers for which payment previously has been sought has been paid from payments received and include a sworn statement. No Request for Payment must include amounts for a Subcontractor or Supplier if the Contractor does not intend to use the payments requested, when received, to reduce the Contractor's outstanding obligations on the Work. The Owner will pay the Contractor within thirty Calendar Days after the Owner receives and approves a certified Request for Payment from the Professional. The Contractor will provide a certification in writing that the payment request submittal is true and accurate. If payment is requested based on materials and equipment stored at the site or at another location agreed to in writing, the Request for Payment also must be accompanied by (a) consent of surety, (b) a bill of sale, invoice or other documentation warranting that the Owner has received the materials and equipment free and clear of all liens, and (c) evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect them and the Owner's interests. The Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Request for Payment, whether incorporated in the Work or not, will pass to the Owner free and clear of all liens no later than at the time of payment by the Owner to the Contractor.

- 7.2.1 **Electronic Funds Transfer**: The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at http://www.michigan.gov/SIGMAVS to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.
- 7.3 **Review of Request for Payment; Intent of Review:** Within ten Calendar Days after receipt of a Request for Payment, the Professional must certify to the Owner the amount the Professional determines to be due or must return the Request for Payment to the Contractor indicating the reasons for withholding certification. The Professional's certification of any Request for Payment constitutes a representation to the Owner that the Work has progressed to the point indicated; that to the best of the Professional's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents; and that the Contractor is entitled to payment in the amount certified. In the case of final payment, the Professional's certification of final payment and recommendation that the Work is acceptable must be a further representation that conditions governing final payment to the Contractor have been met.
- 7.4 **Refusal to Make or to Recommend Payment:** The Owner may withhold from any payment an amount based on the (a) Professional's refusal to recommend payment or (b) Owner's estimate of the fair value of items included in the payment request. The Owner will give the Contractor reasonably prompt written notice supporting such action. The Professional may refuse to recommend any part of any payment, or because of subsequently discovered evidence, inspections or tests or the value of the Punch List, nullify all or any portion of any payment previously recommended, as the Professional may consider necessary to protect the Owner from loss because:
 - (a) the Work is Defective or completed Work has been damaged requiring correction or replacement,
 - (b) the Contract Price has been reduced by Change Order,
 - (c) it has been necessary that the Owner correct Defective Work or complete Work,
 - (d) reasonable evidence exists that all or a part of the Work will not be completed within the corresponding Contract Time,
 - (e) the Contractor failed to comply with any material requirements of the Contract, including, but not limited to the failure to submit Progress Schedule Submittals or as built/Record Documents when due,
 - (f) stored materials for which payment has been made or is sought has been determined by the Professional or the Owner Field Representative to be damaged or missing, or
 - (g) the Professional reasonably believes or knows of the occurrence of an event justifying termination for cause.
- 7.5 **Request for Final Inspection:** The Contractor must complete the Substantial Completion Punch List within the Contract Time and date. The Contractor must assemble all required documentation before requesting final inspection in writing. The Contractor may request final inspection of the entire Work, or the part of the Work for which final payment is specified in the Contract Documents. Upon this written notice, and if deemed appropriate by the professional, the Professional will make a final completion inspection with the Owner and Contractor and notify the Contractor of all incomplete or Defective Work revealed by the Final Inspection. The Contractor must immediately correct and complete the Work.
- 7.6 **Close-out Documents:** The Contractor must prepare and submit the following documentation before requesting final inspection or final payment: final operating and maintenance documentation (with revisions made after Substantial Completion), warranties, inspection certificates, as built/Record Documents, release of payment claim forms, and all other required documents.
- 7.7 **Request for Final Payment:** The Contractor may request final payment after correcting or completing the Work to the satisfaction of the Professional and delivering close-out documentation (7.6). The Contractor's request for final payment must also enclose:
 - (a) evidence of completed operations insurance and an affidavit certifying that the insurance coverage will not be canceled, materially changed, or renewal refused,
 - (b) an affidavit certifying that the surety agrees that final payment does not relieve the surety of any of its obligations under the Performance Bond and Payment Bond,
 - (c) a completed DTMB-0460 Form close out checklist,
 - (d) a list of all pending insurance claims arising out of or resulting from the Work being handled by the Contractor and/or its insurer
 - (e) Contractor's 'Guarantee and Statement' (DTMB-0437) containing a statement of guaranteed indebtedness acceptable to the Owner in the full amount of the Contract Price, or a release of payment claims in the form of a release of liens, or a Bond or other security acceptable to the Owner to indemnify the Owner against any payment claim.
- 7.8 **Final Payment and Acceptance:** If the Professional is satisfied that the entire Work, or the part of the Work for which final payment is specified in the Contract Documents, is complete and the Contractor's other obligations under the Contract Documents has been fulfilled, the Professional will furnish to the Owner and Contractor the Professional's certification of final payment and acceptance within thirty Calendar Days after receipt of the final payment request. If the Professional is not satisfied, the Professional will return the request to the Contractor indicating in writing the reasons for not certifying final payment. If the final payment request is returned, the Contractor must correct the deficiencies and re-request final payment. If the Owner concurs with the Professional's certification of final payment the Owner will, within thirty Calendar Days after receipt of the Professional's certification of final payment, pay the balance of the Contract Price subject to those provisions governing

final payment specified in the Contract Documents. If the Owner does not concur with the Professional's determination, the Owner will return the request for final payment to the Contractor with written reasons for refusing final payment and acceptance.

- 7.9 **Contractor's Continuing Obligation:** The following does not constitute acceptance of the Work in the event the Work or any Work is not in accordance with the Contract Documents, and therefore does not release the Contractor from its obligation to perform and furnish the Work in accordance with the Contract Documents:
 - (a) a certification by the Professional of any Request for Payment or final payment.
 - (b) the issuance of a Substantial Completion certificate.
 - (c) any payment by the Owner to the Contractor.
 - (d) any Partial Use.
 - (e) any act of acceptance by the Owner or any failure to do so.
 - (f) any review and approval of a Shop Drawing, sample, test procedure or other Submittal.
 - (g) any review of a Progress Schedule.
 - (h) any On-Site Inspection.
 - (i) any inspection, test, or approval.
 - (j) any issuance of a notice of acceptability by the Professional; or
 - (k) any correction of Defective Work or any completion of Work by the Owner.
- 7.10 **Waiver of Claims:** The making of final payment does not constitute a waiver by the Owner of any rights as to the Contractor's continuing obligations under the Contract Documents, nor will it constitute a waiver of any claims by the Owner against the Contractor still unsettled, or arising from unsettled payment claims, Defective Work appearing after final inspection or failure by the Contractor to comply with the Contract Documents or the terms of any special warranties provided by the Contract Documents or by Law. The acceptance of final payment will constitute a waiver of all claims by the Contractor against the Owner, other than those claims previously made in writing, on a timely basis.
- 8. Other Work: During the Contract Time, the Owner may self-perform or Contract for other work at the site. By doing so, the Owner or its representative will coordinate the operations of the Contractor and the other work. Whenever the other work interfaces with the Contractor's Work on site, the Contractor must coordinate its activities with the interfacing work, inspect the other work and promptly report to the Professional in writing if the other work is unavailable or unsuitable. The Contractor's failure to do so will constitute an acceptance of such other work as fit and proper for integration with the Work except for latent or non-apparent defects and deficiencies in the other work. The Contractor must provide proper and safe access to the site for handling, unloading and storage of their materials and equipment and for the execution of the other work. The Contractor must do all cutting, fitting, patching, and interfacing of the Work that may be required to make any part of the Work come together properly and integrate with other work. If the Contractor becomes party to a dispute or claim due to damages caused to its Work/property or other work/their property, the Contractor must promptly attempt, without involving the Owner or the Professional or their agents, to settle with the other party by agreement or otherwise resolve the claim. If the Owner determines that the other work resulted in a delay to the Work to be performed by the Contractor and such delay justifies a Change Order, the Owner will authorize the necessary adjustment in Contract Price and/or Time.
- 9. Stop Work Orders and Suspension of Work: The Owner may order the Contractor in writing to defer, stop, suspend, or interrupt all or part of the Work, in the event any of the following situations:
 - (a) any Work is Defective,
 - (b) any Work, when completed, will not conform to the Contract Documents,
 - (c) any materials or equipment are unsuitable,
 - (d) any workers are insufficiently skilled,
 - (e) failure of the Contractor to implement appropriate measures for the SESC, or
 - (f) as the Owner may determine appropriate for its convenience. The Contractor is responsible for the Delays and any additional costs if at fault. Any justified increase in Contract Price/Time due to suspension of Work must be submitted within twenty-one Calendar Days of knowing the extent of Delays and before submitting the final payment.

10. Termination:

- 10.1 **Termination for Breach**: The Owner may elect to terminate all or any part of the Work if:
 - (a) the Contractor fails to complete the Work, or a specified part of the Work, within the corresponding Contract Time; fails or refuses to supply sufficient management, supervision, workers, materials, or equipment; or otherwise fails to prosecute the Work, or any specified part of the Work, with the diligence required to comply with the Contract Time(s).
 - (b) the Contractor persistently disregards the authority of the Professional or violates or disregards a provision of the Contract Documents or the Laws of any Political Subdivision with jurisdiction.
 - (c) the Contractor admits in writing, or the Owner otherwise establishes, the Contractor's inability or refusal to pay the Contractor's debts generally as they become due.
 - (d) in response to the Owner's demand, the Contractor fails to provide adequate, written assurance that the Contractor has the financial resources necessary to complete the Work within the Contract Time.

- (e) the Contractor fails to comply with the Michigan Residency requirements (1984 PA 431, as amended, MCL 18.1241a); or is found to be in violation of Section 4 of 1980 PA 278 concerning unfair labor practices, or any nondiscrimination requirements imposed by Law.
- (f) at any time, the Contractor, Subcontractor or Supplier is in violation of unfair labor practices prohibited by Section 8 of Chapter 327 of the National Labor Relations Act, 29 U.S.C. 158; or
- (g) the Contractor violates or breaches any material provision of the Contract Documents, which provides contractually for cause termination or rescission of the Contract or of the Contractor's right to complete the Work.

Within seven Calendar Days after the Contractor receives a notice requiring assurance of due performance for any of the above occurring non-conformances, the Contractor must meet with the Owner and present the Contractor's plan to correct the problems. If the Owner determines that the Contractor's plan provides adequate assurance of correction, that determination does not waive the Owner's right to subsequently default the Contractor or affect any rights or remedies of the Owner against the Contractor and/or surety then existing or that may accrue in the future. The Owner, after giving the Contractor and surety seven Calendar Days' written notice of intent to default, may declare the Contractor in default and terminate the services of the Contractor for cause. Unless otherwise agreed between the Owner and Contractor, at the expiration of the Seven-Calendar Day (intent to default) period, the Contractor must immediately stop all Work and proceed in accordance with the Owner's instructions. Following the expiration of the Seven-Calendar Day (intent to default) notice, the Contractor will be sent a default letter – notice of termination for cause. The Owner will issue a Contract Change Order to revise the name of the contract party to the name of the surety company. The surety company must undertake to perform and complete the Work, in accordance with the Contract Documents, in place of the Contractor, either through the surety's agents or by executing agreements with qualified contractors (excluding the Contractor and any of the Contractor's affiliates), or both.

The Owner may issue a fifteen-Calendar Day notice of intent to default the surety company if they fail to execute in a timely manner the completion of the Contract Work. Without an adequate plan of correction, the Owner may issue a notice of termination for cause letter to the surety. If a termination of the contract with the surety occurs, the Owner reserves the right to complete the Work.

If the Owner has terminated the Contractor, any such termination will not affect any rights or remedies of the Owner against the Contractor or surety, or both, then existing or that may accrue after termination. All provisions of the Contract Documents that, by their nature, survive final acceptance of the Work must remain in full force and effect after a termination for cause of the Contractor or default of the surety, or both. The Owner may, in its sole discretion, permit the Contractor to continue to perform Work when the Contractor is in default or has been defaulted. Such decision by the Owner in no way operates as a waiver of any of the Owner's rights under the Contract Documents or Performance Bond, nor in the event of a subsequent default, entitle the Contractor or surety to continue to perform or prosecute the Work to completion.

- 10.2 **Termination on Non-Bonded Project**: For non-bonded projects, the Owner will follow the termination protocol in Paragraph 10.1 without involving a surety.
- 10.3 Termination for Convenience of the Owner: Upon fifteen Calendar Days' written notice to the Contractor and surety, or sooner if reasonable under the circumstances, the Owner may, without cause and without prejudice to any other right or remedy it may have, elect to terminate any part of the Work, or the Contract in whole or in part, as the Owner may deem appropriate for its convenience. Upon receipt of any such termination notice, the Contractor must immediately proceed in accordance with any specific instructions, protect and maintain the Work, and make reasonable and diligent efforts to mitigate costs associated with the termination. In such termination, the Contractor must be paid in accordance with the terms of this Contract for only services rendered before the effective date of termination. Upon termination for convenience, the Contractor must be released from any obligation to provide further services and the Owner must have full power and authority to take possession of the Work, assume any agreements with Subcontractors and Suppliers that the Owner selects, and prosecute the Work to completion by Contract or as the Owner may deem expedient.
- 10.4 **Termination for Lack of Funding:** If expected or actual funding is withdrawn, reduced, or limited in any way before the completion date set forth in this Contract or in any amendment, the State may, upon written notice to the Contractor, terminate this Contract in whole or in part in accordance with Paragraph 10.3.
- 11. Disputes: All claims, counterclaims, disputes, and other matters in question between the Owner and Contractor arising out of or relating to the Contract Documents must be submitted in writing to the Professional and otherwise processed and resolved as provided in this Article. Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker (Professional/PSC). Claims by either party must be initiated within 21 days after the occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognized the condition giving rise to the claim. Provided such timely notice is delivered, a full and detailed breakdown of cost and time requested, with supporting documentation, if not provided with initial notice shall be delivered to Professional and Owner within 15 days of the notice, unless otherwise agreed in writing, by the Owner prior to expiration of such time. The Contractor must carry on the Work with due diligence during all disputes or disagreements. Work must not be delayed or postponed pending resolution of any disputes or disagreements. The Contractor must exercise reasonable precautions, efforts, and measures to avoid situations that would cause delay.
- 11.1 **Notice of Claim**: Except for Owner claims for liquidated damages, no claim is valid unless it is based upon written notice delivered by the claimant to the other party and the Professional/PSC within 21 days of the event giving rise to the claim. The

notice must state the nature of the dispute, the amount involved, if any, and the remedy sought. The claim submittal with all supporting data must be delivered within thirty (30) Calendar Days after the initial notice unless the Professional allows an extension by written approval. A claim by the Contractor must be submitted to the Professional and Project Director for a recommendation or decision from the Professional. A claim by the Owner must be submitted to the Contractor and the Professional for a written recommendation or decision by the Professional. The Owner reserves the right to audit any Contractor claim (or claim package) that the Contractor values at more than \$50,000.00. Pending final resolution of any claim under this Article, the Contractor must proceed diligently with the Work and comply with any decision of the Owner and/or Professional. For all Contractor claims seeking an increase in Contract Price or Contract Time, the Contractor must submit an affidavit, certifying that the amount claimed accurately reflects any Delay and all costs that the Contractor is entitled from the occurrence of the claimed event and that supporting cost and pricing data are current, accurate, complete and represent the Contractor's best knowledge and belief. The affidavit must be signed in the same manner as required in Item 6 of Section 00100.

11.2 Recommendations or Decisions from the Professional: For claims under \$100,000.00, if requested in writing by the Contractor, the Professional will render a recommendation or decision within thirty Calendar Days after the request and the Owner will issue, if necessary, a determination within thirty Calendar Days after the Professional's recommendation or decision. For claims exceeding \$100,000.00, the Professional will issue its recommendation or decision and the Owner, if necessary, will issue its determination, within sixty Calendar Day.

If the Professional denies a Contractor claim or agrees with an Owner claim, that decision must be final and binding on the Contractor, without any determination by the Owner, unless the Contractor files a request for a presentation with the Director-DCD within thirty Calendar Days. To the extent that any recommendation from the Professional is partly or wholly adverse to a claim from the Owner, that determination must be final and binding on both the Owner and Contractor unless either party files a request for a presentation with the Director-DCD within thirty Calendar Days. If the Professional recommends payment of any Contractor claim which increases the Contract Price, that recommendation is subject to the Owner's written approval. In the event any such determination from the Owner is partly or wholly adverse to the preceding recommendation from the Professional, that determination must be final and binding on the Contractor unless the Contractor files suit in the Michigan Court of Claims within thirty Calendar Days after receipt of such determination. The claim is waived if not made in accordance with these requirements.

If either the Contractor or Owner is not satisfied with any decision of the Professional on a claim, that party must, within thirty Calendar Days of receiving that decision, file a written appeal with complete supporting documentation with the Director-DCD. The Director-DCD has discretion concerning the allowability of evidence submitted and is not bound to any rules of evidence. If the right to a presentation is waived or if a presentation is conducted and the dispute remains unresolved, the Director-DCD, at the Director-DCD's sole option, must specify in which forum the dispute must be conducted by issuing a written determination to the Contractor that the dispute if the Contractor so elects, be submitted in writing to the Michigan Court of Claims. The Director-DCD's determination on the dispute is final and binding on the Contractor unless the Contractor files a lawful action in the Michigan Court of Claims within thirty Calendar Days after receiving the Director-DCD's determination. After settlement or final adjudication of any claim, if payment by the Contractor is not made to the Owner, the Owner may offset the appropriate amounts against (a) payments due to the Contractor under any other Contract between the Owner and the Contractor, or (b) any amounts for which the Owner may be obligated to the Contractor in any capacity. The Director-DCD may designate someone to fulfill the Director-DCD's duties under these terms and conditions.

END OF SECTION 00700

SECTION 00750 SPECIAL WORKING CONDITIONS

- The Work is for the Department of Military and Veterans Affairs and their special working conditions are included in Appendix II. Contractor must comply with all security regulations. Access to and egress from the buildings and State Agency grounds must be via routes specifically designated by the State Agency. Whenever the Contractor has caused an operating security or fire system to go out of service or left unsecured openings in existing facilities or security fences, the Contractor must furnish a security guard or fire watch acceptable to the Owner to maintain security of the facility outside of normal working hours and will be held responsible for any losses from the facility.
- 2. The Contractor must maintain, at all times, dust control measures to the satisfaction of the Owner.

END OF SECTION 00750

SECTION 00800 SUPPLEMENTARY CONDITIONS

- 1. The following conditions must supplement the general conditions:
 - a. The Contractor must provide invoices of material and equipment provided as part of the Project if requested by the Owner for use for utility energy incentive rebate programs. This information must be provided if requested before the final payment will be made.

File No. 511/25133

END OF SECTION 00800

SECTION 00850 FEDERALLY FUNDED PROJECT PREVAILING WAGE REQUIREMENTS/SCHEDULE

If a project is funded in whole or in part by federal dollars, the Contractor and all Subcontractors must comply with all Laws pertaining to occupational classifications and to the following requirements:

- If applicable, the Contractor (and its Subcontractors) for prime construction contracts in excess of \$2,000 must comply with the Davis-Bacon Act (40 USC 3141-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction").
- 2. The Contractor (and its Subcontractors) shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and the laborers and mechanics;
- 3. The Contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work;
- 4. There may be withheld from the Contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the Contractor or any Subcontractor on the work the difference between the rates of wages required by the Contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the Contractor or Subcontractors or their agents.

END OF SECTION 00850

SECTION 00900 ADDENDA

1. Each Bid submittal must include acknowledgement of receipt and review of all Addenda issued during the Bidding period.

END OF SECTION 00900

DIVISION 01 GENERAL REQUIREMENTS

File No. 511/25133

SECTION 01010 SUMMARY OF WORK

1. General

- 1.1 General information covering the "Scope of Work" is specified on the Invitation to Bid. Additional information is as follows:
 - (a). None.
- 1.2 The Agency will provide the following Work:
 - (a) State Salvage: The State reserves the right to salvage certain items and equipment and those salvaged items will be identified to the Bidder at the time of their inspection of the proposed Work. The State will remove salvaged items before commencement of the Work.
 - (b) Moving Furnishings and Equipment: The Contractor must give timely notice to the State Agency representative identified in the pre-construction meeting of all furnishings, window covering and movable equipment that will interfere with the Work or which the Contractor cannot protect with coverings of paper, plastic, drop cloths or clean tarpaulin. The Contractor must furnish, install, maintain, and remove all coverings used to protect furnishings, window coverings and movable equipment.

END OF SECTION 01010

SECTION 01020 ALLOWANCES

1. Allowances

1.1 Cash Allowances:

- (a) Bidders must include in their Base Proposal Sum an allowance of \$0. The base bid shall include bonds and insurance on the value of the allowance.
- (b) Monies in the allowance will be used only if directed in writing by the Project Director and Professional.
- (c) Payments under a Cash Allowance must be on actual cost and <u>exclude</u> cost for supervision, handling, unloading, storage, installation, testing, fee, premiums for bond and insurance, etc.
- (c) Unused allowances will be deducted from the contract amount through contract change order.

1.2 Provisional/Contingency Allowances:

- (a) Bidders must include in their Base Proposal Sum a contingency allowance of **\$10,000**. The base bid shall include bonds and insurance on the value of the allowance.
- (b) Monies will be used in the contingency allowance only if directed in writing by the Project Director and Professional.
- (c) Payments under a Provisionary Allowance will include not only the purchase/furnished cost of the materials and equipment involved, but also all related labor costs, subcontract costs, construction equipment costs, general conditions costs and Fee, provided they are calculated in accordance with the requirements of the contract documents.
- (c) Unused allowances will be deducted from the contract amount through contract change order.

END OF SECTION 01020

SECTION 01025 MEASUREMENT AND PAYMENT

1. Schedule of Values: Unless noted otherwise, before mobilization and start of construction, the Contractor must submit a Schedule of Values to the Professional for review and approval, of the various tasks that must be performed to complete all the Work. The schedule must show each task and the corresponding value of the task, including separate monies allocated for General Condition items and Project close-out. The aggregate total value for all tasks must be equal to the total Contract sum.

END OF SECTION 01025

SECTION 01030 ALTERNATES

- 1. **Use of Alternates**: Determination of the lowest three Bidders shall be based on the sum of the Base Bid and any additive and deductive Alternates the Owner accepts, in the order in which they are listed only. The Owner will accept an Alternate only if all other previously listed Alternates are also accepted unless acceptance by the Owner of Alternates in a different order does not affect determination of the lowest three bidders in any way.
- 2. **Execution:** (a) Coordinate pertinent related Work and modify surrounding work as required to complete the Project for each alternate.
 - (b) Description of Alternates: N/A

END OF SECTION 01030

SECTION 01040 COORDINATION

1. Project Coordination:

- (a) Before beginning Work the Contractor must coordinate with the State Agency representative to implement the schedule for the Project. Once the Project is started, it must be carried to completion without delay.
- (b) Any building utility service interruptions or outages including security required by the Contractor in performing the Work must be prearranged with the staff of the State Agency and must occur only during those scheduled times.
- (c) The Contractor is not responsible for removing room furnishings unless is required by the Contract Documents.

2. Cutting and Patching:

- (a) The Contractor must do all cutting, fitting, or patching of the Work that may be required to make its several parts fit together properly or make new Work join with the existing structure. The Contractor must take proper precautions so as not to endanger any existing Work. The Contractor must not cut or alter existing structural members or foundations unless specifically required by the Contract Documents.
- (b) Holes or openings cut in exterior walls and roofs for installation of materials or equipment must be waterproofed by appropriate, approved materials and methods.
- (c) All adjacent finished surfaces that are damaged by the new Work must be patched with materials matching existing surfaces. Joints between patched and existing material must be straight, smooth, and flush. Workers skilled in its installation must apply all patching material.

END OF SECTION 01040

SECTION 01050 FIELD ENGINEERING

1. When applicable, the Contractor must employ a surveyor who must establish and maintain all lines and levels required for laying out and constructing the Work. The Contractor agrees to assume all responsibility due to inaccuracy of any Work of the surveyor, and including incorrect benchmarks, their loss or disturbance. Upon completion of the Project, the Contractor must submit two copies of site layout Drawings prepared for the Project and certified by the surveyor.

END OF SECTION 01050

SECTION 01060 REGULATORY REQUIREMENTS

- 1. Laws: The Contractor and its Subcontractors/Suppliers must comply with all Federal, State, and local Laws applicable to the Work and site.
- 2. Codes: All Works must be provided in accordance with the State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seg., International Building and Residential Codes and all applicable Michigan construction codes and fire safety including but not limited to: Michigan Building Code, Michigan Residential Code, Michigan Uniform Energy Code, Michigan Electrical Code, Michigan Rehabilitation Code for Existing Buildings, Michigan Mechanical Code, Michigan Elevator Code and Michigan Plumbing Code. If the Contractor observes that any Contract Document conflicts with any Laws or the State Construction Code or any permits in any respect, the Contractor must promptly notify the Professional in writing. If the Contractor provides any Work knowing or having to reason to know of such conflict, the Contractor must be responsible for that performance.
- 3. Permits: All required construction permits must be secured and their fees including inspection costs must be paid by the Contractor. The time incurred by the Contractor in obtaining construction permits must constitute time required to complete the Work and does not justify any increases to the Contract Time or Price, except when revisions to the Drawings and/or Specifications required by the permitting authority cause the Delays. The Contractor must pay all charges of Public Utilities for connections to the Work, unless otherwise provided by Cash Allowances specific to those connections.
- **4. Taxes:** The Contractor must pay all Michigan sales and use taxes and any other similar taxes covering the Work that are currently imposed by legislative enactment and as administered by the Michigan Department of Treasury, Revenue Division. If the Contractor is not required to pay or bear the burden or obtains a refund of any taxes deemed to have been included in the Bid and Contract Price, the Contract Price must be reduced by a like amount and that amount, whether as a refund or otherwise, must ensure solely to the benefit of the State of Michigan.
- 5. Safety and Protection: The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State, and local Laws governing the safety and protection of persons or property, including, but not limited to the Michigan Occupational Safety and Health Act (MIOSHA), 1974 PA 154, as amended, MCL 408.1001 et seg., and all rules promulgated under the Act. The Contractor is responsible for all damages, injury or loss to the Work, materials, equipment, fines, penalties as a result of any violation of such Laws, except when it's due to the fault of the Drawings or Specifications or to the Act, error, or omission of the

Owner or Professional. The Contractor is solely responsible for initiating, maintaining, and supervising all safety precautions and programs and such responsibility must continue until such time as the Professional is satisfied that the Work, or Work inspected, is completed and ready for final payment. In doing the Work and/or in the event of <u>using explosives</u>, the Contractor must take all necessary precautions for the safety of, and must erect and maintain all necessary safeguards and provide the necessary protection to prevent damage, injury or loss to: (a) all employees on the Work and other persons who may be affected by the Work, (b) all the Work and materials and equipment to be incorporated into the Work, whether stored on or off the site, and (c) other property at or adjacent to the site, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Utilities not designated for removal, relocation or replacement. In the event of severe weather, the Contractor must inspect the Work and the site and take all reasonably necessary actions and precautions to protect the Work and ensure that public access and safety are maintained.

6. Fire Hazard Conditions:

- (a) The fire hazard classification of finish materials where used in the specification must be in accordance with the current Michigan Building Code.
- (b) Classification must be determined by tunnel test in accordance with National Fire Protection Association (NFPA-255), American Society for Testing Materials (ASTM E-84) or Underwriters' Laboratories, Inc. (UL-723).
- 7. Flame/Smoke Resistance Standards: The Contractor must provide carpeting complying with "Class B" requirements as set forth in Michigan Department of State Police State Fire Safety Board "Health Care Facilities Fire Safety Rules' R29.1243, Rule 243, when tested in accordance with the following procedures:
 - (a) Tunnel Test: Test for surface burning characteristics, with ratings for flame spread, fuel contribution, and/or smoke density; ASTM E 84, UL 723, or NFPA No. 255.
 - (b) Pill Test: Test for flammability; ASTM D 2859, or DOC FF-1-70.
 - (c) Floor Radiant Panel Test: Test for burning under varying radiant energy levels; ASTM E 648, with minimum average radiant flux ratings not less than 0.45 watts/sq. cm.
 - (d) Smoke Density Test: Test in radiant heat chamber, with and without flame, for density of smoke generated; ASTM E 662, or NFPA No. 258, also known as NBS Smoke Density Chamber Test.
- 8. Michigan Right-To-Know Law: The Contractor and its Subcontractors/Suppliers must comply with MIOSHA, Michigan Right-to-Know Law (Public Act 80 of 1986) and the rules promulgated under it. The Act places certain requirements on employers to develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers and development and availability of Safety Data Sheets (SDS), and to provide training for employees who work with these chemicals and develop a written hazard communications program. The Act also provides for specific employee rights, including the right to be notified of the location of SDS and to be notified at the site of new or revised SDS within five Business Days after receipt and to request SDS copies from their employers. The Contractor, employer or Subcontractor must post and update these notices at the site.
- 9. Environmental Requirements: The Contractor and its Subcontractors/Suppliers must comply with all applicable Federal, State and local environmental Laws, standards, orders or requirements including but not limited to the National Environmental Policy Act of 1969, as amended, Michigan Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, the Clean Air Act, as amended, the Clean Water Act, as amended, the Safe Drinking Water Act, as amended, Pollution Prevention Act, as amended, Resource Conservation and Recovery Act, as amended, National Historic Preservation Act, as amended and Energy Policy and Conservation Act and Energy Standards for Buildings Except Low-Rise Residential Buildings, ANSI/ASHRAE/IESNA Standard 90.1-1999.
- **10. Nondiscrimination:** For all State Contracts for goods or services in amount of \$5,000 or more, or for Contracts entered into with parties employing three or more employees; in connection with the performance of Work under this Contract, the Contractor and its Subcontractors and Suppliers must comply with the following requirements:
- 10.1 Not to discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight or marital status and take affirmative action to ensure that applicants are employed, and the employees are not subject to such discrimination. Such action must include, but is not limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.
- 10.2 To state in all solicitations or advertisements for employees that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, or marital status.
- 10.3 To send, or have its collective bargaining representative send, each labor union or representative of workers with which there is a collective bargaining agreement or other contract or understanding, a notice advising the labor unions or workers' representative of the commitments under this provision.
- 10.4 To comply with the Elliot-Larsen Civil Rights Act, 1976 PA 453, as amended, MCL 37.2201 et seq.; the Michigan Persons with Disability Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 et Seq.; Executive Directive 2019-09; and all published rules,

regulations, directives, and orders of the Michigan Civil Rights Commission (MCRC) which may be in effect on or before the date of Bid opening.

- 10.5 The Contractor must furnish and file compliance reports within the times, and using the forms prescribed by the MCRC. Compliance report forms may also elicit information as to the practices, policies, programs, and employment statistics of the Contractor and Subcontractors. The Contractor must permit access to Records by the MCRC and its agent for purposes of ascertaining compliance with the Contract and with rules, regulations, and orders of the MCRC.
- 10.6 If, after a hearing held under its rules, the MCRC finds that the Contractor has not complied with the Elliott-Larson requirements of the Contract Documents, MCRC may, as part of its order, certify its findings to the Administrative Board of the State of Michigan, which may order the cancellation of the Contract and/or declare the Contractor ineligible for future contracts with the State until the Contractor complies with the MCRC's order.
- 11. Michigan Residency for Employees: Fifty percent of the persons employed on the Work by the Contractor must have been residents of the State of Michigan for not less than one year before beginning employment on the Work. This residency requirement may be reduced or waived to the extent that Michigan residents are not available or to the extent necessary to comply with the federal funds used for the Project. This requirement does not apply to employers who are signatories to collective bargaining agreements that allow for the portability of employees on an interstate basis.

END OF SECTION 01060

SECTION 01090 REFERENCES

1. References will be made in an abbreviated alpha numeric form to specific standard specifications, reference publications and building codes of federal or state agencies, manufacturers, associations, or trade organizations. Such references will be identified by the alphabetic abbreviation which identifies the government agency, the association or organization followed by the rule, section or detail number that are to form a part of these specifications, the same as if fully set forth herein, and must be of latest issued date in effect three months before the Bid opening date shown on the Proposal and Contract. The abbreviations used are referred to as follows:

Abbreviation	Agency, Association or Organization		
ACI AISC AMCA ANSI ASHRAE ASME ASSE ASTM AWS AWWA BOCA CDA CLFMI CISPI CRSI CS F/M FS HEW MDOT NFPA NSF NSWMA PCA PDI	American Concrete Institute American Institute of Steel Construction, Inc. Air Moving and Conditioning Association American National Standards Institute, Inc. American Society of Heating, Refrigerating and Air Conditioning Engineers American Society of Mechanical Engineers American Society of Sanitary Engineering American Society of Testing and Materials American Welding Society American Water Works Association Building Officials and Code Copper Development Assn., Inc. Chain Link Fence Manufacturer's Institute Cast Iron Soil Pipe Institute Concrete Reinforcing Steel Institute Commercial Standard Factory Mutual Research Corporation Federal Specifications United States Department of Health Education and Welfare Michigan Department of Transportation National Fire Protection Association National Sanitation Foundation Testing Laboratory, Inc National Solid Waste Management Association Portland Cement Association Plumbing and Drainage Institute		
SMACNA UL USBM	Sheet Metal & Air Conditioning Contractors Underwriters Laboratories, Inc. United States Bureau of Mines		
USDC	United States Department of Commerce		

END OF SECTION 01090

SECTION 01100 PROJECT PROCEDURES

1. Signage and Safety: The Contractor must post appropriate construction signs to advise the occupants and visitors of occupied facilities of the limits of construction work areas, hardhat areas, excavations, construction parking and staging areas, etc. Advertising signage by contractors, subcontractors, or suppliers is not allowed. The Contractor must maintain safe and adequate pedestrian and vehicular access to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, hospitals, fire, and police stations and like establishments. The Contractor must obtain written approval from the Owner ten Calendar Days before connecting to existing facilities or interrupting the services on site.

2. Barrier and Enclosures:

- (a) The Contractor must furnish, install, and maintain as long as necessary and remove when no longer required adequate barriers, warning signs or lights at all dangerous points throughout the Work for protection of property, workers, and the public. The Contractor must hold the State of Michigan harmless from damage or claims arising out of any injury or damage that may be sustained by any person or persons as a result of the Work under the Contract.
- (b) **Temporary Fence**: The Contractor must entirely enclose the Contract area by means of woven wire or snow fence having minimum height of four feet. Gates must be provided at all points of access. Gates must be closed and secured in place at all times when Work under the Contract is not in progress. The fence must be removed, and grounds restored to original condition upon completion of the Work.
- (c). **Street Barricades**: The Contractor must erect and maintain all street barricades, signal lights and lane change markers during the periods that a traffic lane is closed for their operations. There must be full compliance with rules and ordinances respecting such street barricading and devices must be removed when hazard is no longer present.

3. Construction Aids:

- (a) The Contractor must furnish, install, and maintain as long as necessary and remove when no longer required, safe and adequate scaffolding, ladders, staging, platforms, chutes, railings, hoisting equipment, etc., as required for proper execution of the Work. All construction aids must conform to Federal, State, and local codes or Laws for protection of workers and the public.
- (b) **Debris Chute**: The Contractor must use a chute to lower debris resulting from their Work. The chute must be the enclosed type with its discharge directly into the truck or approved container.
- (c) **Pumping and Drainage**: The Contractor must provide all pumping necessary to keep excavations and trenches free from water the entire period of Work on the Contract. The Contractor must construct and maintain any necessary surface drainage systems on the Work site so as to prevent water entering existing structures or to flow onto public or private property adjacent to the Agency's land, except for existing drainage courses or into existing drainage systems. The Contractor must prevent erosion of soils and blockage of any existing drainage system.

END OF SECTION 01100

SECTION 01200 PROJECT MEETINGS

- 1. **Pre-Construction Conferences**: The Project Director will schedule a pre-construction conference to be attended by the Professional, State Agency staff, and the Contractors. A project procedure as outlined in Form DTMB-0460, will be established for the Work during the pre-construction meeting. When no organizational meeting is called, the Contractor, before beginning any Work, must meet with the staff of the Agency and arrange a Work schedule for the Project. Once the Project has been started, the Contractor must carry it to completion without delay.
- 2. Progress Meetings: The Professional will schedule progress meetings to be held on the job site whenever needed to supply information necessary to prevent job interruptions, to observe the Work or to inspect completed Work. The Contractor must be represented at each progress meeting by persons with full authority to act for the Contractor in regard to all portions of the Work.

END OF SECTION 01200

SECTION 01300 SUBMITTALS

- 1. Shop Drawings, Samples and Technical Submittals:
 - a. The contractor shall upon receiving a contract from the DMVA, or a go-ahead from the General Contractor, prepare a set of submittals showing the materials intended for use on the project. The submittals shall be in the following form:
 - i. Divided into the specification sections laid out in the specification book. Develop a separate submittal for each specification section within their scope of work.
 - ii. valid submittal shall NOT be a complete manufacturers catalog or have many pages that show products not intended for use on the project.
 - iii. The contractor needs to copy only pages from the catalog(s) that have products on it that are being submitted for approval. These pages should have the manufacturer's name on it, or preceding the product page, include a page that does have the name of the manufacturer.
 - iv. Products intended for use shall be clearly marked by highlighting, circling, or utilizing an arrow to indicate the model, size, color, etc. of the product intended for use on the project.

- b. Only submit pages from manufacturers catalogs that apply to the project, that show what is being installed if approved, and is clearly marked.
- c. For electronic submissions, the above requires the contractor to have a copy of Adobe Acrobat PDF software that allows the contractor to "extract" one page or multiple consecutive pages from a large catalog. The software shall also allow the contractor to "combine" pages into one PDF file once each page has been marked up to indicate which model, size, color, etc. is being submitted for approval.
- d. Once the product pages have been marked up, combined, and have the contractor's cover sheet included, the contractor needs to send it to their General Contractor so they can review and add their cover sheet to the submittal package.
- 1.1 Contractor's Review: Before each submission, the Contractor must:
 - (a) determine and verify all field measurements, quantities, dimensions, instructions for installation and handling of equipment and systems, installation requirements (including location, dimensions, access, fit, completeness, etc.), materials, color, catalog numbers and other similar data as to correctness and completeness, and
 - (b) have reviewed and coordinated that technical Submittal with other technical submittals and the requirements of the Contract Documents.
- **1.2 Notice of Variation:** The Contractor must give the Professional specific written notice of any variation from the requirements of the Contract Documents.
- **1.3 Contractor's Approval:** The Contractor shall not submit unapproved submittals. Each submittal shall be stamped/certified to indicate that the submittal satisfies the requirements of the Contract Documents before submission to the Professional.
- 1.4 Responsibility and Authority: Neither the Owner's authority to review any of the Submittals by the Contractor, nor the Owner's decision to raise or not to raise any objections about the Submittals, creates or imposes any duty or responsibility on the Owner to exercise any such authority or decision for the benefit of the Contractor/Subcontractor/Supplier, any surety to any of them or any other third party. The Contractor is not relieved of responsibility for errors or omissions in shop drawings, product data, samples, or similar submittals just because the Professional approved them for general design intent.
- **1.5 Final As-Built/Record Documents and Submittals:** The approved Submittals are a part of the final As-Built/Record Documents required for processing final payment to the Contractor.
- **1.6 Submissions:** Contractor must submit to the Professional:
 - (a) Contractor to submit shop drawings to the Department of Military Affairs. Submit electronic versions of the submittals, upon approval contractor to submit two hard copies of each to DMVA; and
 - (b) all required samples; and
 - (c) all other technical submittals (test, results, test and safety procedures, O&M manuals, etc.) that are required by the Contract Documents.
- 1.7 Professional's Review and Return: Professional's Review and Return: Submittals will be returned to the Contractor within fifteen Calendar Days. The Contractor is responsible for any time Delay and any cost incurred by the Professional, Contractor or Subcontractors/Suppliers as a result of resubmissions and re-reviews of a particular Submittal. The Contractor shall revise, and correct submittals returned for revision and resubmittal until approval by the Professional is achieved. All time consumed by the resubmissions and rereviews of a particular Submittal shall constitute time required to furnish that Submittal or shall represent Delays not justifying any increase in Contract Time or Contract Price, or both.

2. Progress Schedule:

- 2.1 SUMMARY
- A. The **Contractor** will submit CPM Progress Schedules to the **Owner** depicting its approach to prosecution of the Work. This includes but is not limited to the **Contractor's** approach to recovering schedule and managing the effect of changes, substitutions, and Delays on Work sequencing.
- B. The Progress Schedule will include the Rev. 0 Submittal (par. 2.14), Update Submittals (par. 2.15) and Revision Submittals (par. 2.16). Each Submittal will be assigned a unique number. For a resubmission, the initial number will be modified by the letter A, B, C, etc., as appropriate.
- C. Through the Progress Schedule, the **Owner** will seek to stay current on progress, updated Activity and Milestone Dates, and the **Contractor's** approach to Work remaining.
- D. References to the Critical Path Method (CPM) are to CPM construction industry standards that are consistent with the requirements of this Section.
- 2.2 RELATED SECTIONS
- A. Section 00700 General Conditions; and Section 00800 Supplementary Conditions.
- 2.3 GLOSSARY OF TERMS
- A. Capitalized terms not already defined in any Division 0 Specification have the following intent and meanings:
 - 1. Milestone—A key point of progress, designating interim targets toward the Contract Times. They may pinpoint critical path foundations, key deliveries, building framing, start of MEP rough-in, building enclosure, partitions, interior finishes, conditioned space, commissioning stages, Substantial Completion, and other events of like import.

- 2. Official Schedule–The most recent Revision Submittal returned to the **Contractor** as Resubmittal Not Required. The Rev. 0 Official Schedule is the *As-Planned* Schedule.
- 3. Revision 0 Submittal-Progress Schedule submitted by the Contractor depicting the entire Work as awarded.
- 4. Update Submittal-A monthly Progress Schedule update reflecting progress and minor adjustments on the Activities, sequencing and restraints for Work remaining.

2.4 QUALITY ASSURANCE

A. The **Contractor** will obtain a written interpretation from the **Professional,** if the **Contractor** believes the selection of Activities, logic ties or restraints requires an interpretation of the Contract Documents. With each submission, the **Contractor** will point out by specific, written notation, any Progress Schedule feature that may reflect variations from any requirements of the Contract Documents.

- B. The **Contractor** is responsible to obtain information from each Subcontractor and Supplier when scoping their respective Activities, Values, logic ties and restraints
- C. No review of any Progress Schedule by or on behalf of the **Owner** will relieve the **Contractor** from complying with the Contract Times and any required sequence of Work or from completing Work omitted from the Progress Schedule. No review will imply approval of any variation from or interpretation of the Contract Documents, unless approved by the **Professional** through a written interpretation or by means of a separate, written notation.

2.5 ALLOWANCES

A. Work covered by Cash Allowances will be completed within the Contract Times. To the extent reasonable and consistent with the **Contractor's** plan, Work authorized by provisionary contingency allowances will be completed within the Contract Times. The Progress Schedule will incorporate the **Contractor's** best estimate of the Activities, logic and restraints required, using the information in the Contract Documents, or as indicated by the **Professional** in writing.

2.6 "OR EQUALS" AND SUBSTITUTIONS

A. Activities in the Rev. 0 Progress Schedule will be based on materials and equipment required by the Contract Documents and will not reflect any "or equal" or substitute materials or equipment, even if the **Contractor** intends to pursue "or equal" and substitution proposals. This limitation also applies to any Means and Methods indicated in or required by the Contract Documents.

2.7 MEASUREMENT AND PAYMENT

A. The Schedule of Values will include a Progress Schedule *pay item*. Fifteen percent (15%) of this *pay item* will be eligible for payment upon delivery of the *complete* Rev. 0 Submittal. The balance of this *pay item* will be eligible for payment, on a prorated basis, with each Request for Payment attaching an Update Submittal.

2.8 PROGRESS SCHEDULE SUBMITTALS

A. Each Progress Schedule Submittal will consist of an electronic copy the **Contractor's file**, a narrative and a PDF file of the project schedule report and plots, each file appropriately titled for the schedule version and date of publishing.

- B. The CPM scheduling software will be Primavera Project Planner®, SureTrak® or Microsoft Project®.
- C. In addition to the monthly update schedule submittal, **Contractor** shall provide prior to each Progress Meeting, a 2-week look ahead schedule extracted from the current overall schedule and providing sufficient additional activity detail to appropriately define the expected activity during the upcoming 2-week period.

2.9 PRINTOUTS

- A. <u>Schedule Reports</u> will include Activity (ID) code and description, duration, calendar, Early Dates, Late Dates and Total Float, all of which will comport with the requirements of paragraph 8.3.4 of Section 00700 General Conditions.
- 1. Late Finish Date for an Activity pinpointing a Contract Time will equal that Contract Time. Early Start Date for an Activity designating a Contract restraint will equal the proper Notice to Proceed date. Schedule Reports may or may not append CPM Plots (time-scaled Activity/logic).
- 2. For Precedence Diagram Method, separate Schedule Reports will tabulate, for each Activity, all preceding and succeeding logic types and lead times, whether CPM Plots displaying vertical logic ties are appended or not.
- B. <u>CPM Schedule Plots</u> will be plotted on a suitable time scale and identify the Contract Times, Critical Paths, and sub-Critical Paths. Activities will be shown on the Early Dates with Total Floats noted by Late Date flags.
- c. <u>Line of Balance Plots</u> will reflect industry practice for repetitive construction and will segregate the production lines for all trades within the hammock Activities.

2.10 NARRATIVE REQUIREMENTS

A. In general, a narrative will describe the **Contractor's** approach to prosecution of the Work, subject to the requirements of the Contract Documents. Further, each narrative will list the Critical Path Activities and compare Early and Late Dates with Contract Times and Milestone Dates. The basis for restraint dates will be explained.

B. For each Update Submittal, the narrative will compare current Dates to the respective Milestone Dates, describe changes in crewing and construction equipment and identify new Delays. For each Revision Submittal, the narrative also will itemize changes in Activities, logic ties and restraint dates made necessary by each change, Delay, schedule recovery, substitution and **Contractor**-initiated revision occurring since the previous Submittal.

2.12 ACTIVITY REQUIREMENTS

A. The Progress Schedule will detail Work sequencing only to the extent necessary to allow the **Owner** to correlate percent complete, compare actual dates with Milestones and Contract Times and the data in Requests for Payment.

- B. Separate Activities will designate permits, construction, Submittal preparation/review (and resubmission and re-review, for same); MEP coordination drawings; deliveries; commissioning; and Punch List. Separate Activities will designate **Owner**-furnished items, interface with other work and the **Owner** and **Professional's** responsibilities.
- C. Activities will be detailed only to the extent required to show the transition of trade Work. Activities will detail the progression through site/excavation, foundations, building framing, start/completion of interior partitions, MEP rough-in, building enclosure, interior finishes, conditioned space, and commissioning.
 - 1. Submittal Activities will segregate long-lead items, any item requiring structural access and other procurements that, in the **Contractor's** judgment, may bear on the rate of progress. Separate MEP coordination drawing Activities will be used for each

- floor. Beyond these requirements, it is not necessary to burden the Progress Schedule with Activities for less significant Submittals and deliveries.
- 2. For multiunit Work (e.g., rough-in overhead MEP for each floor, etc.), detailed Activities will be shown for a typical (often, the first) unit). Other or follow-on units may be replicated, as appropriate, or modeled with a hammock Activity combining the sum total of the typical detailed Activities. Separate Activities, as may be suitable to the Divisions of Work involved, will be identified for single-unit Work. This requirement applies to such scope as Work in mechanical rooms, building framing, commissioning, etc.
- 3. Activities will not combine separate or non-concurrent items of Unit Price or lump sum Work, Work in separate structures and Work in distinct areas, locations or floors within an area or structure; or rough-in and finish Work.
- D. Activity durations will equal the Business Days required to sufficiently complete the Work designated by the Activity (i.e., when finish-to-start successors may start, even if the Activity is not quite 100% complete). Installation Activities will last from twenty (20) to forty (40) Days.
- E. Activities will be assigned consistent descriptions and identification codes. Sort codes will group Activities by building or structure, floor or area, Change Order and Change Authorization and other meaningful schemes.

2.13 FLOAT TOLERANCES

A. Any Progress Schedule with Early Dates after a Contract Time will yield negative Total and Contract Floats, whether shown/calculated or not. Any Revision Submittal with less than negative twenty (20) Days of Float will be returned as "Revise and Resubmit," unless a time extension is requested, or the **Owner** withholds liquidated damages or asserts intent to do so in the event schedule is not recovered. B. Floats calculated from the definitions given in Section 00020 Glossary supersede any conflicting Float values calculated within any early completion Progress Schedule.

2.14 REVISION 0 (Rev. 0) SUBMITTAL

- A. The complete Revision 0 Submittal will be due with the first Request for Payment. The Rev. 0 Submittal will show the Work as awarded, without Delays, "or equal" or substitutions, Change Orders or Change Authorizations.
 - 1. The Rev. 0 narrative will detail the **Contractor's** management of the site (lay down, parking, etc.). Further, the Rev. 0 narrative will identify shifts, weekend Work, Activity calendars, Delays since award and all pending and anticipated "or equal" and substitution proposals.
- B. Once endorsed by the **Owner** and returned as "Resubmittal Not Required," the Rev. 0 Progress Schedule (or Rev. 0A, etc.) will be the As-Planned Schedule and the basis for Update Submittals until the Rev. 1 Official Schedule is established. Once the As-Planned Schedule is established, the **Owner** will select Milestones and note Milestone Early and Late Dates. As the Official Schedule evolves, Milestone Dates will be revised accordingly.
- D. If the **Owner** refuses to endorse the Rev. 0 Submittal (or Rev. 0A, for a resubmission) as "Resubmittal Not Required," the As-Planned Schedule will not be established. In that event, the **Contractor** will continue to submit Update and Revision Submittals reflecting progress and the **Contractor's** approach to remaining Work. The **Owner** will rely on the available Update and Revision Submittals, subject to whatever adjustments it determines appropriate.

2.15 UPDATE SUBMITTALS

A. Update Submittals with progress up to the closing date and updated Early and Late Dates for progress and remaining Activities will be due with each Request for Payment. As-built data will consist of actual start dates, percent complete, actual finish dates, changes, Delays, and other significant events occurring before the closing date.

2.16 REVISION SUBMITTALS

- A. Progress Schedule Revisions will be submitted with the third Request for Payment and every two (2) months after that, or more often, if necessary due to schedule recovery or other Progress Schedule revisions. Revisions will revise the Update Submittal attached to the prior Request for Payment.
- B. Progress Schedule revisions will detail all impacts on pre-existing Activity scope, logic ties and restraint dates and reflect the Contractor's current approach to Work remaining. Revisions may be required because of changes in the Work, substitutions, schedule recovery and Delays.
- C. Once endorsed by the **Owner** and returned as "Resubmittal Not Required," a Revision Submittal becomes the Rev. 1, Rev. 2, etc. Official Schedule and the basis for subsequent Update Submittals until a more current Official Schedule is established. If the **Owner** refuses to endorse a Revision Submittal as "Resubmittal Not Required," the **Contractor** will continue to submit Update and Revision Submittals when and as required in this Section.

2.17 RETROSPECTIVE DELAY ANALYSIS

A. If the **Owner** refuses to endorse any Revision Submittal as "Resubmittal Not Required," the **Contractor** and **Owner** will use the latest Official Schedule when evaluating the effect of Delays on Contract Time and/or Contract Price. The procedure will consist of progressively revising the latest Official Schedule at key Revision Submittal closing dates. For each Progress Schedule iteration, slippage between actual Milestone Dates and Rev. 0 Milestone Dates will be correlated to Delays occurring solely in that iteration. Revisions affecting Work after any iteration will be included only to the extent consented by the **Owner** at that time and/or if confirmed by as-built progress.

3. Shop Drawings: The Contractor shall deliver shop drawings of products, materials, assemblies, or equipment to the Professional.

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Design Services Section
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Lansing, MI 48906

4. Samples: The Contractor must deliver all samples of material or equipment to the job site for examination by the State Agency and the Professional. Samples will be examined by the Professional for conformance with the design concept of the Project and

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for compliance with the information given in the Contract Documents. The Contractor must furnish all Work in accordance with approved samples. The following general classifications of material and equipment require submission of samples. Samples of other items may be requested by the Professional at any time.

<u>Item of Work</u> <u>Type of Sample</u> <u>Section Number</u>

Asphalt Shingles Samples 073113

END OF SECTION 01300

SECTION 01400 QUALITY CONTROL

1. **Testing Laboratory Services**: All tests required by the Owner must fulfill ASTM, ANSI, Commercial and other Standards for testing. The Contractor must submit a minimum of three copies of each test report to the Professional for evaluation and subsequent distribution. The following general classifications of Work require submission of test reports and/or certificates of inspection. Additional submissions may be requested by the Professional at any time.

<u>Item of Work</u> <u>Test Type</u> <u>Section Number</u> N/A

- 2. Tests:
 - (a) Paid by Contractor:
- 3. **Concrete/Asphalt Materials**: Before placement of any concrete, the Contractor must submit for the Professional's approval complete data on the trial concrete mix formulation and a testing laboratory report for ASTM C94, twenty-eight-day standard cylinder test for compressive strength of a sample of the concrete mix. For asphalt paving, the Contractor must submit the data and testing reports for ASTM D946, AC-5. The mix must have 4.5 to 6 percent of asphalt cement by weight for binder course and 5 to 7 percent of asphalt cement by weight for surface course in accordance with Asphalt Institute Manual MS-4, MS-13, and the current Michigan Department of Transportation (MDOT) Standard Specifications for Construction.
 - (a) The Contractor must furnish to the Professional tickets showing mix formulation, Contractor's name, Project name, mix identification for each load of concrete/asphalt delivered and installed. If the technical specifications allow added water to the concrete mix after leaving the batch plant, the delivery ticket must reflect the added water. The Owner Field Representative must receive a copy of each delivery ticket for transmittal to the Professional for evaluation.
 - (b) The Professional may require the Contractor to core drill questionable cast-in-place concrete/asphalt for laboratory testing. Should the laboratory analysis indicate the concrete/asphalt fails to meet specification requirements, the Contractor must pay all costs for core drilling and testing in the laboratory and replace the concrete/asphalt found to fail meeting the specification requirements. Should the laboratory analysis confirm that the concrete/asphalt meets specification requirements, the Owner will pay the Contractor for their costs for core drilling, concrete/asphalt patching and the laboratory fee for testing of the concrete/asphalt core samples.

END OF SECTION 01400

SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

- The Contractor must furnish and install all temporary facilities and controls required by the Work, must remove them from State
 property upon completion of the Work, and the grounds and existing facilities must be restored to their original condition.
- If water or electricity is available in the area where Work will be performed, the Contractor will not be charged for reasonable
 use of these services for construction operation. The Contractor must pay costs for installation and removal of any temporary
 connections including necessary safety devices and controls. Use of services must not disrupt or interfere with operations of
 the State Agency.
- 3. Temporary Sanitary Facilities:
 - (a) **Portable Toilets**: The Contractor must provide and maintain a sufficient number of portable temporary toilets in locations approved by the State Agency. They must comply with all Federal, State, and local code requirements. The Contractor must maintain the temporary toilets in a sanitary condition at all times and must remove them when the Work under this Contract is complete. The Contractor's employees are not allowed to use any existing State toilet facility.
- 4. Field Office:

- (a) **On Site Trailer:** At the beginning of the Work, the Contractor may provide a field office and storage building at the site in a location acceptable to the Owner. The building may be a trailer. The Contractor may provide such other temporary buildings as he may require for the use of workers and safe storage for tools and materials. Job signs with the Contractor's name, logos, specialty, ... etc., are not allowed.
- (b) At no time will the contractor be allowed to store materials in any buildings on Grayling Army Airfield. The buildings under this contract will remain locked. If contactor requires access to the building, a request must be submitted to the on-site field inspector, and they will unlock the building.
- 5. **Temporary Heating**: Until the new heating system is ready to provide heat, the Contractor must provide adequate temporary heaters to maintain the temperature in those areas of the building where Work is being conducted between 55 degrees F. and 70 degrees F. during working hours.

END OF SECTION 01500

SECTION 01600 MATERIAL AND EQUIPMENT

- The Contractor must furnish and be responsible for all materials, equipment, facilities, tools, supplies and utilities necessary for completing the Work. All materials and equipment must be provided as described in the Contract Documents and of good quality, free of defect and new and must be applied, installed, connected, erected, used, cleaned and conditioned following the manufacturer's and Suppliers' instructions.
- 2. Delivery, Storage, and Handling: All materials and equipment delivered to and used in the Work must be suitably stored and protected from the elements. The areas used for storage must only be those approved by the State Agency. The Owner assumes no responsibility for stored material. The ownership and title to materials will not be vested in the Owner before materials are incorporated in the Work unless payment is made by the Owner for stored materials and equipment. After delivery, before and after installation, the Contractor must protect materials and equipment against theft, injury, or damage from all causes. For all materials and equipment, the Contractor must provide complete information on installation, operation, and preventive maintenance.
 - (a) The Contractor must cover and protect bulk materials while in storage which are subject to deterioration because of dampness, the weather or contamination. The Contractor must keep materials in their original sealed containers, unopened, with labels plainly indicating manufacturer's name, brand, type, and grade of material and must immediately remove from the Work site containers which are broken, opened, watermarked and/or contain caked, lumpy, or otherwise damaged materials.
 - (b) The Contractor must keep equipment stored outdoors from contact with the ground, away from areas subject to flooding and covered with weatherproof plastic sheeting or tarpaulins.
 - (c) The Contractor must certify that any materials stored off-site are:
 - a) Stored on property owned or leased by the Contractor or owned by the agency.
 - b) Insured against loss by fire, theft, flood, or other hazards.
 - c) Properly stored and protected against loss or damage.
 - d) In compliance with the plans and specifications.
 - e) Specifically allotted, identified, and reserved for the project.
 - f) Itemized for tracking and payment.
 - g) Subject to these conditions until the items are delivered to the project site.

END OF SECTION 01600

SECTION 01650 FACILITY START-UP

- 1. **Tests**: The complete installation consisting of the several parts of equipment and systems installed according to the requirements of the Contract Documents must be ready in all respects for use by the State Agency and must be subjected to a test at full operating conditions and pressures for normal conditions of use.
- 2. **Adjustments**: Contractor must adjust and replace the Work which is necessary to fulfill the requirements of the Contract Documents and to comply with the directions and recommendations of the manufacturer of the several parts of equipment, and to comply with all provisions of architectural and/or engineering drawings/specifications and all codes and regulations which may apply to the entire installation.
- 3. **Demonstration**: Contractor must provide an on-site demonstration and training of all systems operations to the Owner when it is substantially completed.

END OF SECTION 01650

SECTION 01700 CONTRACT CLOSE-OUT

Substantial Completion: The Contractor must notify the Professional, the Project Director and the Agency when the Work will be substantially complete. If the Professional, Owner, and Agency agree that the project is Substantially Complete, the Professional and Project Director will inspect the Work. The Professional, upon determining that the Work, or a portion of the Work inspected, is substantially complete, will prepare a Punch List and will attach it to the respective Certificate of Substantial Completion. The Contractor must be represented on the job site at the time this inspection is made and thereafter must complete all Work by the date set for final acceptance by the Owner.

2. Cleaning:

- (a) Regular Cleaning: The Contractor must remove all scrap or removed material, debris, or rubbish from the Project work site at the end of each working day and more frequently whenever the Owner Field Representative deems such material to be a hazard. The Contractor cannot discard materials on the grounds of the State Agency without the express permission of the Project Director. No salvage or surplus material may be sold on the premises of the State Agency. No burning of debris or rubbish is allowed. Any recyclable materials must be recycled, and the Contractor will be required to provide recycling plan.
- (b) **Final Cleaning**: Before final acceptance by the State, the Contractor must clean all Work and existing surfaces, building elements and contents that were soiled by their operations and make repairs for any damage or blemish that was caused by the Work.

END OF SECTION 01700

SECTION 01800 MAINTENANCE

1. The Contractor is responsible for maintaining the following parts of Work in good order and proper working conditions and must take all necessary actions for their protection until they are placed for use by the Owner:

END OF SECTION 01800

SECTION 01900 – EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Installation of the Work.
 - 2. Dust control.
 - 3. Cutting and patching.
 - 4. Progress cleaning.
 - 5. Protection of installed construction.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.3 SUBMITTALS

- A. Dust Control Plan Plan shall show how dust will be contained and removed during drilling, coring and cutting operations.
 - 1. Plan contents.
 - a. Coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate.
 - 2. Do not start work without approved dust control plan. If work is done under this contract begins prior to approved plan contractor shall take full responsibility for cleaning or replacing any and all computer and communications equipment that is contaminated with dust.

1.4 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

- 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
 - 3. Before digging Call Walt Sullivan at 269-282-7525.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed

- 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- 4. If any conditions are found to be detrimental to the performance of the Work as required provide a written statement to the Design Professional with the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 00700 "GENERAL CONDITIONS."
- E. Surface and Substrate Preparation: Comply with manufacturer's written recommendations for preparation of substrates to receive subsequent work.

3.3 DUST CONTROL

- A. Contractor shall provide dust control in accordance with approved dust control plan. All concrete dust shall be contained and disposed of during drilling, coring and cutting operations. Room has sensitive equipment that must be protected from dust.
 - 1. Do not start work without approved dust control plan. If work is done under this contract begins prior to approved plan contractor shall take full responsibility for cleaning or replacing any and all computer and communications equipment that is contaminated with dust.
- B. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.

- 2. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
- 3. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
- 4. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
- 5. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous

3.5 CUTTING AND PATCHING

- A. Also see Section 01040 COORDINATION for additional Cutting and Patching Requirements.
- B. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- C. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- D. Temporary Support: Provide temporary support of work to be cut.
- E. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- F. Adjacent Occupied Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Pavement: Cut using a cutting machine, such as an abrasive saw to provide smooth straight cut for clean butt joint with new work.
 - 5. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 6. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 7. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

- 1. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
- 2. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
- 3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- 4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 01900

SECTION 01930 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Product Data.
- B. Related Requirements:
 - 1. Section 01300 "SUBMITTALS".

1.2 SUBMITTALS

- A. Record Drawings: Submit PDF electronic files of scanned record prints and one paper copy sets of prints.
- B. Record Product Data: Submit PDF electronic files and one paper copy of each submittal.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 - 3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
 - 5. Prior to submittal Contractors authorized Representative shall review and mark each record drawing sheet with red ink as follows:
 - a. Print or stamp "PROJECT RECORD DRAWING" in a prominent location.
 - b. Date of review.
 - c. Contractors Authorized Signature.
- B. Format: Submit three bound paper set of record prints and one annotated PDF electronic file.

2.2 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
 - 4. Prior to submittal Contractors authorized Representative shall review updated product data, then prepare a cover sheet with an index of updated product data and mark cover sheet with red ink as follows:
 - a. Print or stamp "PROJECT RECORD SPECIFICATION in a prominent location.
 - b. Date of review.
 - c. Contractors Authorized Signature.
- B. Format: Submit three bound paper set of record Product Data with cover sheet and one PDF electronic file.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Design Professional's and Construction Manager's reference during normal working hours.

END OF SECTION 01930

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 **SUMMARY**

- Section includes administrative and procedural requirements for the following: A.
 - Salvaging nonhazardous demolition and construction waste.
 - Recycling nonhazardous demolition and construction waste. 2.
 - Disposing of nonhazardous demolition and construction waste. 3.

В. Related Requirements:

Section 024119 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements, and for disposition of hazardous waste.

1.2 **DEFINITIONS**

- Construction Waste: Building and site improvement materials and other solid waste resulting A. from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- В. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work

1.3 PERFORMANCE REQUIREMENTS

General: Achieve end-of-Project rates for salvage/recycling of 60 percent by weight of total Α. non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials.

1.4 **SUBMITTALS**

Waste Management Plan: Submit plan within 30 days of date established for the Notice to A. Proceed.

- B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Use Form CWM-7 for construction waste and Form CWM-8 for demolition waste. Include the following information:
 - 1. Material category.
 - 2. Generation point of waste.
 - 3. Total quantity of waste in tons.
 - 4. Quantity of waste salvaged, both estimated and actual in tons.
 - 5. Quantity of waste recycled, both estimated and actual in tons.
 - 6. Total quantity of waste recovered (salvaged plus recycled) in tons.
 - 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- C. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

1.6 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing, and construction waste generated by the Work. Use Form CWM-1 for construction waste and Form CWM-2 for demolition waste. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Use Form CWM-3 for construction waste and Form CWM-4 for demolition waste. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

- 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the
- 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
- Salvaged Materials for Donation: For materials that will be donated to individuals and 3. organizations, include list of their names, addresses, and telephone numbers.
- Recycled Materials: Include list of local receivers and processors and type of recycled 4. materials each will accept. Include names, addresses, and telephone numbers.
- 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
- Handling and Transportation Procedures: Include method that will be used for separating 6. recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- В. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan.
- Training: Train workers, subcontractors, and suppliers on proper waste management C. procedures, as appropriate for the Work.
 - Distribute waste management plan to everyone concerned within three days of submittal
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.

3.2 SALVAGING DEMOLITION WASTE

- Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows: A.
 - Clean salvaged items. 1.
 - Pack or crate items after cleaning. Identify contents of containers with label indicating 2. elements, date of removal, quantity, and location where removed.
 - Store items in a secure area until installation. 3.
 - Protect items from damage during transport and storage. 4.

- 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area designated by Owner.
 - 5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

3.4 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

3.5 **ATTACHMENTS**

- Form CWM-1 for construction waste identification. A.
- B. Form CWM-2 for demolition waste identification.
- C. Form CWM-3 for construction waste reduction work plan.
- D. Form CWM-4 for demolition waste reduction work plan.
- E. Form CWM-5 cost/revenue analysis of construction waste reduction work plan.
- F. Form CWM-6 cost/revenue analysis of demolition waste reduction work plan.
- G. Form CWM-7 for construction waste
- Н. Form CWM-8 for demolition waste.

END OF SECTION 017419

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

FILE NUIVIBER	511/25133.AGY						
FORM CWM-1: CONSTRUCTION WAS	STE IDENTIFICA	TION					
MATERIAL CATEGORY	GENERATION POINT	EST. QUANTITY OF MATERIALS RECEIVED* (A)	EST. WASTE - % (B)	TOTAL EST. QUANTITY OF WASTE* (C = A x B)	EST. VOLUME CY (CM)	EST. WEIGHT TONS	REMARKS AND ASSUMPTIONS
Packaging: Cardboard							
Packaging: Boxes							
Packaging: Plastic Sheet or Film							
Packaging: Polystyrene							
Packaging: Pallets or Skids							
Packaging: Crates							
Packaging: Paint Cans							
Packaging: Plastic Pails							
Site-Clearing Waste							
Masonry or CMU							
Lumber: Cut-Offs							
Lumber: Warped Pieces							
Plywood or OSB (scraps)							
Wood Forms							
Wood Waste Chutes							
Wood Trim (cut-offs)							
Metals							
Insulation							
Roofing							
Joint Sealant Tubes							
Gypsum Board (scraps)							
Carpet and Pad (scraps)							
Piping							
Electrical Conduit							
Other:							

^{*} Insert units of measure.

REPLACE SHINGLE ROOF UTES BLDG 2295 PROJECT NAME

LOCATION Fort Custer Training Center

511/25133.AGY FILE NUMBER

FORM CWM-2: DEMOL	ITION WASTE	IDENTIFICATIO	N	
MATERIAL	EST.	EST.	EST. WEIGHT	
DESCRIPTION	QUANTITY	VOLUME CY	TONS	REMARKS AND ASSUMPTIONS
Asphaltic Concrete				
Paving Concrete	-			
Brick	-	-		
CMU	-	-		
Lumber	-	-		
	-			
Plywood and OSB Wood Paneling	-	-		
Wood Failening Wood Trim	-	-		
	 			
Miscellaneous Metals				
Structural Steel				
Rough Hardware				
Insulation				
Roofing				
Doors and Frames				
Door Hardware				
Windows				
Glazing				
Acoustical Tile				
Carpet				
Carpet Pad				
Demountable				
Partitions				
Equipment				
Cabinets				
Plumbing Fixtures				
Piping				
Piping Supports and				
Hangers				
Valves	ļ			
Sprinklers	ļ			
Mechanical				
Equipment	-			
Electrical Conduit	-			
Copper Wiring	-			
Light Fixtures	-	-		
Lamps	-			
Lighting Ballasts	-			
Electrical Devices	-			
Switchgear and				
Panelboards Transformers	-	-		
Transformers Other:	-	-		
Other:		<u> </u>		l

Bidding and Contract Document Project Name: Replace Shingle Roof UTES, FCTC File No. 511/25133

DMVA CFMO

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

	511/25133.AGY							
FORM CWM-3: CONSTRUCTION	N WASTE REDUCTION WORK PLAN							
		TOTAL EST. QUANTITY OF	DISPOSAL METHOD AND Q	DISPOSAL METHOD AND QUANTITY				
MATERIAL CATEGORY	ATERIAL CATEGORY GENERATION POINT		EST. AMOUNT SALVAGED TONS	EST. AMOUNT RECYCLED TONS	EST. AMOUNT DISPOSED TO LANDFILL TONS	HANDLING AND TRANSPORTION PROCEDURES		
Packaging: Cardboard								
Packaging: Boxes								
Packaging: Plastic Sheet or								
Film								
Packaging: Polystyrene								
Packaging: Pallets or Skids								
Packaging: Crates								
Packaging: Paint Cans								
Packaging: Plastic Pails								
Site-Clearing Waste								
Masonry or CMU								
Lumber: Cut-Offs								
Lumber: Warped Pieces								
Plywood or OSB (scraps)								
Wood Forms								
Wood Waste Chutes								
Wood Trim (cut-offs)								
Metals								
Insulation								
Roofing								
Joint Sealant Tubes								
Gypsum Board (scraps)								
Carpet and Pad (scraps)								
Piping								
Electrical Conduit								
Other:								

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

FILE NUMBER 511/25133.AGY							
FORM CWM-4: DEMOLITION WASTE	REDUCTION WO	RK PLAN					
MATERIAL CATEGORY	GENERATION TOTAL EST. QUANTITY OF WASTE			DISPOSAL METHOD AND QUANTITY			
	POINT	TONS	EST. AMOUNT SALVAGED TONS	EST. AMOUNT SALVAGED TONS EST. AMOUNT RECYCLED TONS EST. AMOUNT DISPOSED TO LANDFILL TONS			
Asphaltic Concrete Paving							
Concrete							
Brick							
CMU							
Lumber							
Plywood and OSB							
Wood Paneling							
Wood Trim							
Miscellaneous Metals							
Structural Steel							
Rough Hardware							
Insulation							
Roofing							
Doors and Frames							
Door Hardware							
Windows							
Glazing							
Acoustical Tile Carpet							
Carpet Pad							
Demountable Partitions							
Equipment							
Cabinets							
Plumbing Fixtures							
Piping	1						
Supports and Hangers							
Valves	-						
Sprinklers							
Mechanical Equipment							
Electrical Conduit							
Copper Wiring	 						
Light Fixtures	†						
Lamps	1						
Lighting Ballasts							
Electrical Devices							
Switchgear and Panelboards							
Transformers	 			-			
Other:	<u> </u>						

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

Nate Continue Co	FILE NUMBER 511/25133.AGY									
MATERIALS OF MATERIALS (VOL. or Weight) (A) DISPOSAL (B) DISPOSAL (C = A X B) ALYACED MATERIALS (R) RECYCLED MATERIALS (R) TPPING FEES AVOIDED (F) TARASPORTATION OF WORK PLAN (R) OF WORK	FORM CWM-5: COST/REVENUE ANALYSIS OF CONSTRUCTION WASTE REDUCTION WORK PLAN									
Packaging: Boxes	MATERIALS	OF MATERIALS (VOL. OR WEIGHT)	DISPOSAL	DISPOSAL	SALVAGED MATERIALS	RECYCLED MATERIALS	TIPPING FEES	TRANSPORTATION COSTS AVOIDED	OF WORK PLAN	
Packaging: Plastic Sheet or Film <	Packaging: Cardboard									
Packaging: Polystyrene Packaging: Pallets or Skids Packaging: Pallets or Skids Packaging: Pallets or Skids Packaging: Pallets or Skids Packaging: Pallet Cans Packaging: Pallet Cans Packaging: Palsic Palls Packaging: Palsic Pa	Packaging: Boxes									
Packaging: Pallots or Skids <	Packaging: Plastic Sheet or Film									
Packaging: Crates	Packaging: Polystyrene									
Packaging: Plastic Pails <td>Packaging: Pallets or Skids</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Packaging: Pallets or Skids									
Packaging: Plastic Pails	Packaging: Crates									
Site-Clearing Waste	Packaging: Paint Cans									
Masonry or CMU	Packaging: Plastic Pails									
Lumber: Gut-Offs	Site-Clearing Waste									
Lumber: Warped Pieces										
Plywood or OSB (scraps) (a) (b) (c)	Lumber: Cut-Offs									
Wood Forms	Lumber: Warped Pieces									
Wood Vaste Chutes	Plywood or OSB (scraps)									
Wood Trim (cut-offs)	Wood Forms									
Metals Insulation Roofing Joint Sealant Tubes Gypsum Board (scraps) Carpet and Pad (scraps) Electrical Conduit	Wood Waste Chutes									
Insulation Roofing Joint Sealant Tubes Gypsum Board (scraps) Carpet and Pad (scraps) Piping Electrical Conduit										
Roofing Joint Sealant Tubes Gypsum Board (scraps) Carpet and Pad (scraps) Piping Electrical Conduit										
Joint Sealant Tubes Gypsum Board (scraps) Carpet and Pad (scraps) Piping Electrical Conduit		-								
Carpet and Pad (scraps) Piping Electrical Conduit										
Piping Electrical Conduit	Gypsum Board (scraps)									
Electrical Conduit	Carpet and Pad (scraps)									
Electrical Conduit	Piping									
Other:										
	Other:									

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

FILE NUMBER	511/25133.AGY							
FORM CWM-6: COST/REVENUE	FORM CWM-6: COST/REVENUE ANALYSIS OF DEMOLITION WASTE REDUCTION WORK PLAN							
MATERIALS	TOTAL QUANTITY OF MATERIALS (VOL. OR WEIGHT) (A)	EST. COST OF DISPOSAL (B)	TOTAL EST. COST OF DISPOSAL (C = A X B)	REVENUE FROM SALVAGED MATERIALS (D)	REVENUE FROM RECYCLED MATERIALS (E)	LANDFILL TIPPING FEES AVOIDED (F)	HANDLING AND TRANSPORTATION COSTS AVOIDED (G)	NET COST SAVINGS OF WORK PLAN (H = D + E + F + G)
Asphaltic Concrete Paving				 			 	
Concrete								
Brick								
СМИ								
Lumber								
Plywood and OSB								
Wood Paneling								
Wood Trim								
Miscellaneous Metals								
Structural Steel								
Rough Hardware								
Insulation								
Roofing								
Doors and Frames								
Door Hardware								
Windows								
Glazing								
Acoustical Tile								
Carpet								
Carpet Pad								
Demountable Partitions								
Equipment								
Cabinets								
Plumbing Fixtures								
Piping								
Supports and Hangers								
Valves								
Sprinklers								
Mech. Equipment								
Electrical Conduit								
Copper Wiring								
Light Fixtures								
Lamps								
Lighting Ballasts								
Electrical Devices								
Switchgear and Panelboards				ļ			ļ	
Transformers		ļļ		ļ				
Other:								

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

FILE NUMBER 511/25133.AGY	DEDUCTION DO							
FORM CWM-7: CONSTRUCTION WASTE	REDUCTION PRO	OGRESS REPORT			1		1	
MATERIAL CATEGORY	GENERATION POINT	TOTAL QUANTITY OF WASTE TONS (A)	QUANTITY OF WASTE SALVAGED		QUANTITY OF WASTE RECYCLED		TOTAL QUANTITY OF WASTE RECOVERED	TOTAL QUANTITY OF WASTE RECOVERED %
			ESTIMATED TONS	ACTUAL TONS (B)	ESTIMATED TONS	ACTUAL TONS (C)	TONS (D = B + C)	(D / A X 100)
Packaging: Cardboard								
Packaging: Boxes								
Packaging: Plastic Sheet or Film								
Packaging: Polystyrene								
Packaging: Pallets or Skids								
Packaging: Crates								
Packaging: Paint Cans								
Packaging: Plastic Pails								
Site-Clearing Waste								
Masonry or CMU								
Lumber: Cut-Offs								
Lumber: Warped Pieces								
Plywood or OSB (scraps)								
Wood Forms								<u> </u>
Wood Waste Chutes								
Wood Trim (cut-offs)								
Metals								$\overline{}$
Insulation Roofing	-							$\vdash \vdash \vdash$
Joint Sealant Tubes								
Gypsum Board (scraps)								
Carpet and Pad (scraps)								
Piping								
Electrical Conduit								
Other:								

PROJECT NAME REPLACE SHINGLE ROOF UTES BLDG 2295

LOCATION Fort Custer Training Center

FILE NUMBER	511/25133.AGY							
FORM CWM-8: DEMOLITION W	ASTE REDUCTION	ON PROGRESS RE	PORT					
MATERIAL CATEGORY	GENERATION	TOTAL QUANTITY OF WASTE TONS	QUANTITY OF WASTE SALVAGED		QUANTITY OI RECYCLED	F WASTE	TOTAL QUANTITY OF WASTE	TOTAL QUANTITY OF WASTE
	POINT	(A)	ESTIMATED TONS	ACTUAL TONS (B)	ESTIMATED TONS	ACTUAL TONS (C)	TONS (D = B + C)	% (D / A X 100)
Asphaltic Concrete Paving								
Concrete								
Brick								
СМИ								
Lumber								
Plywood and OSB								
Wood Paneling								
Wood Trim								
Miscellaneous Metals								
Structural Steel								
Rough Hardware								
Insulation								
Roofing								
Doors and Frames								
Door Hardware								
Windows								
Glazing								
Acoustical Tile								
Carpet								
Carpet Pad								
Demountable Partitions								
Equipment								
Cabinets								
Plumbing Fixtures								
Piping								
Supports and Hangers								
Valves					\vdash			
Sprinklers					-			
Mechanical Equipment					-			
Electrical Conduit								
Copper Wiring	-		\vdash		-		-	
Light Fixtures	-						-	
Lamps	-						-	
Lighting Ballasts	-						-	
Electrical Devices	-						-	<u> </u>
Switchgear and Panelboards	-							<u> </u>
Transformers	-							
Other:								

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.

B. Related Requirements:

- 1. APPENDIX III Special Project Procedures
 - a. Demolition and Remodeling Procedures.
 - b. Hazardous Material Project Procedures.
 - c. Asbestos Abatement Project Procedures.
- 2. Section 01010 Summary of Work.

1.2 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.4 SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property. Indicate proposed locations and construction of barriers.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- C. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

1.5 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Notify DMVA of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.6 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. Survey of Existing Conditions: Record existing conditions by use of measured drawings.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - Arrange to shut off utilities with utility companies.
 - If services/systems are required to be removed, relocated, or abandoned, provide 2. temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - Disconnect, demolish, and remove fire-suppression systems, plumbing, electrical, and 3. HVAC systems, equipment, and components indicated on Drawings to be removed.
 - Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
 - Equipment to Be Removed: Disconnect and cap services and remove equipment. c.
 - Equipment to Be Removed and Reinstalled: Disconnect and cap services and d. remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - Equipment to Be Removed and Salvaged: Disconnect and cap services and remove e. equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible g. ductwork material and leave in place.

PROTECTION 3.3

- Temporary Protection: Provide temporary barricades and other protection required to prevent A. injury to people and damage to adjacent buildings and facilities to remain.
 - Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - Provide temporary weather protection, during interval between selective demolition of 2. existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - Protect walls, ceilings, floors, and other existing finish work that are to remain or that are 3. exposed during selective demolition operations.
 - Cover and protect furniture, furnishings, and equipment that have not been removed. 4.
 - Comply with requirements specified in Section 01100 "Special Project Procedures". 5.
 - Comply with Dust Control Requirements in Section 01900 "Execution Requirements".
- Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as В. required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - Strengthen or add new supports when required during progress of selective demolition.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain adequate ventilation when using cutting torches.
 - 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 9. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

B. Removed and Reinstalled Items:

- 1. Clean and repair items to functional condition adequate for intended reuse.
- 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
- 3. Protect items from damage during transport and storage.
- 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

- 4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 061600 - SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Roof sheathing.

1.2 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials.
- B. Evaluation Reports: For the following, from ICC-ES:
 - 1. Wood-preservative-treated plywood.
 - 2. Fire-retardant-treated plywood.

PART 2 - PRODUCTS

2.1 WOOD PANEL PRODUCTS

- A. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- B. Factory mark panels to indicate compliance with applicable standard.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: As tested according to ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

2.3 PRESERVATIVE-TREATED PLYWOOD

- A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
- B. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.
- C. Application: Treat items indicated on Drawings and plywood in contact with masonry or concrete or used with roofing, flashing, vapor barriers, and waterproofing.

SHEATHING 061600 - 1

2.4 FIRE-RETARDANT-TREATED PLYWOOD

- A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article that are acceptable to authorities having jurisdiction and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
 - 1. Exterior Type: Treated materials shall comply with requirements specified above for fireretardant-treated plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
 - 2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
- C. Kiln-dry material after treatment to a maximum moisture content of 15 percent.
- D. Identify fire-retardant-treated plywood with appropriate classification marking of qualified testing agency.
- E. Application: Treat plywood indicated on Drawings, and the following:
 - 1. Roof and wall sheathing within 48 inches of fire walls.
 - 2. Roof sheathing.
 - 3. Subflooring and underlayment for raised platforms.

2.5 ROOF SHEATHING

- A. Oriented-Strand-Board Sheathing: DOC PS 2, Exposure 1, Structural I.
 - 1. Span Rating: Not less than 24/0.
 - 2. Nominal Thickness: Not less than 3/4 inch.

2.6 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

2.7 MISCELLANEOUS MATERIALS

A. Adhesives for Field Gluing Panels to Wood Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

SHEATHING 061600 - 2

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- Do not use materials with defects that impair quality of sheathing or pieces that are too small to A. use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting В. construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 - Table 2304.9.1, "Fastening Schedule," in the ICC's International Building Code.
 - Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), 2. "Alternate Attachments," in the ICC's International Residential Code for One- and Two-Family Dwellings.
 - ICC-ES evaluation report for fastener. 3.
- D. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

3.2 WOOD STRUCTURAL PANEL INSTALLATION

- General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood A. Construction Guide," for types of structural-use panels and applications indicated.
- Fastening Methods: Fasten panels as indicated below: В.
 - Wall and Roof Sheathing:
 - Nail to wood framing.
 - Space panels 1/8 inch apart at edges and ends. b.

END OF SECTION 061600

SHEATHING 061600 - 3

SECTION 070150 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Remove shingles, and related components.
 - 2. Remove and reinstall flashings, reseal to weather-tight condition.
 - 3. Inspect nailers, flashing, and insulation, replace if required.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Reroofing Conference: Conduct conference at Project site (during Preconstruction Meeting).
 - 1. Meet with DMVA Inspector; roofing Installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof accessories, and roof-mounted equipment.
 - 2. Review methods and procedures related to roofing system tear-off and replacement, including, but not limited to, the following:
 - a. Reroofing preparation, including roofing manufacturer's written instructions.
 - b. Temporary protection requirements for existing roofing system components that are to remain.
 - c. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
 - d. Condition and acceptance of existing roof insulation for reuse and replacement requiring notification of DMVA.
 - e. Condition and acceptance of existing roof deck and base flashing substrate for reuse.
 - f. Structural loading limitations of roof deck during reroofing.
 - g. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
 - h. Existing conditions that may require notification of Project Manager before proceeding.

1.3 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations are not disrupted. Provide Owner and Site Inspector with not less than 72 hours' notice of activities that may affect Owner's operations.
 - 1. Coordinate work activities daily with Owner so Owner can place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
 - 2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- D. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.
- E. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

PART 2 - PRODUCTS

2.1 GENERAL

A. Provide products which are certified by manufacturers to be fully compatible with the indicated substrates and roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

- A. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- B. Debris Handling Lower Debris to ground level in enclosed chutes which discharge directly into trucks. Debris shall become contractor's property and removed form site daily.

3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
- B. Remove existing shingles, ice/water shield, recovery board and other roofing system components as shown on Drawings.
- C. Remove any insulation that is not in a reusable condition. The installation of new insulation will be at the approval of DMVA inspector and will be performed under unit cost amount provided in contract.

3.3 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
 - 1. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150

SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 **SUMMARY**

- A. Section Includes:
 - Polyisocyanurate foam-plastic board insulation.

1.2 **SUBMITTALS**

A. Product Data: For each type of product.

PART 2 - PRODUCTS

POLYISOCYANURATE FOAM-PLASTIC BOARD INSULATION 2.1

- A. Polyisocyanurate Board Insulation, Glass-Fiber-Mat Faced: ASTM C1289, glass-fiber-mat faced, Type II, Class 1, Grade 3 (25 psi).
 - Basis-of-Design: GAF EnergyGuard Polyiso Insulation or an approved equal.
 - Thickness: As indicated on Drawings. 2.

2.2 **ACCESSORIES**

- Insulation for Miscellaneous Voids: A.
 - Glass-Fiber Insulation: ASTM C 764, Type II, loose fill; with maximum flame-spread and smoke-developed indexes of 5, per ASTM E 84.
 - Spray Polyurethane Foam Insulation: ASTM C 1029, Type II, closed cell, with maximum 2. flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
- Insulation Anchors, Spindles, and Standoffs: As recommended by manufacturer. B.
- C. Full-Spread Applied Insulation Adhesive: Insulation manufacturer's recommended sprayapplied, low-rise, two-component urethane adhesive formulated to attach roof insulation to substrate or to another insulation layer.

PART 3 - EXECUTION

INSTALLATION, GENERAL 3.1

- Comply with insulation manufacturer's written instructions applicable to products and A. applications.
- Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, B. rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

D. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.2 INSTALLATION OF INSULATION

A. Adhered Insulation: Insulation shall be attached by a two component, heated, insulating type adhesive acceptable to the manufacturer and covered by the Total Systems Warranty. Adhesive is to be applied full coverage spray or with a High Pressure Extrusion Process, with a minimum of 500 psi and a maximum of 4" on center. No cold applied products or asphalt.

END OF SECTION 072100

SECTION 073113 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 **SUMMARY**

- A. Section Includes:
 - Asphalt shingles.
 - Underlayment. 2.
 - 3. Ridge vents.
 - Metal flashing and trim. 4.

1.2 **SUBMITTALS**

- Product Data: For each type of product. A.
- B. Samples: For each exposed product and for each color and texture specified.
- C. Maintenance data.
- D. Manufacturer's warranty.
- E. Installer's warranty.

1.3 **QUALITY ASSURANCE**

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.1 DELIVERY, STORAGE, AND HANDLING

- Store roofing materials in a dry, well-ventilated location protected from weather, sunlight, and A. moisture according to manufacturer's written instructions.
- B. Store underlayment rolls on end on pallets or other raised surfaces. Do not double stack rolls.
- C. Protect unused roofing materials from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.
- D. Handle, store, and place roofing materials in a manner to prevent damage to roof deck or structural supporting members.

1.2 FIELD CONDITIONS

- Environmental Limitations: Install self-adhering sheet underlayment within the range of A. ambient and substrate temperatures recommended in writing by manufacturer.
- Weather Limitations: Proceed with installing asphalt shingles only when existing and forecasted B. weather conditions will permit work to be performed according to manufacturers' recommendations and warranty requirements and when substrate is completely dry.

ASPHALT SHINGLES 073113 - 1

- C. Temperature: Do not apply shingles when air temperature is below 40 degrees F.
- End-of-Day Closure: At end of work day and at onset of inclement weather, close exterior D. openings with weatherproof cover to render building weather-tight.

1.3 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace asphalt shingles that fail within specified warranty period.
 - Material Warranty Period: 30 years from date of Substantial Completion, prorated, with first 10 years nonprorated.
 - Wind-Speed Warranty Period: Asphalt shingles will resist blow-off or damage caused by 2. wind speeds of up to 110 mph for 15 years from date of Substantial Completion.
 - Algae-Resistance Warranty Period: Asphalt shingles will not discolor for 15 years from 3. date of Substantial Completion.
- B. Roofing Installer's Warranty: On warranty form at end of this Section, signed by Installer, in which Installer agrees to repair or replace components of asphalt-shingle roofing that fail in materials or workmanship within specified warranty period.
 - Workmanship Warranty Period: Two years from date of Substantial Completion.

1.4 **EXTRA MATERIALS**

- Furnish extra materials described below that match products installed and that are packaged A. with protective covering for storage and identified with labels describing contents.
 - Asphalt Shingles 100 square feet of each type in unbroken bundles.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- Exterior Fire-Test Exposure: Provide asphalt shingles and related roofing materials identical to A. those of assemblies tested for Class A fire resistance according to ASTM E 108 or UL 790 by Underwriters Laboratories, Inc. or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.
- Wind-Resistance-Test Characteristics Provide products identical to those tested and which B. passed ASTM D 3161 or UL 997. Identify each bundle with appropriate markings of applicable testing and inspecting agency.

2.2 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Laminated-Strip Asphalt Shingles: ASTM D 3462, laminated, multi-ply overlay construction, glass-fiber reinforced, mineral-granule surfaced, and self-sealing.
 - 1. Basis-of-Design Product: Provide CertainTeed Landmark PRO, Burnt Sienna color, **250 lbs/square** only to match existing roofing systems.
- Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles. B.

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2.3 UNDERLAYMENT MATERIALS

- Self-Adhering Sheet Underlayment, Granular Surfaced: ASTM D 1970, minimum of 60-mil-A. thick sheet; glass-fiber-mat-reinforced, SBS-modified asphalt; mineral-granule surfaced; with release backing; cold applied.
 - Basis-of-Design Product: Subject to compliance with requirements, provide **CertainTeed, Winterguard** or comparable product by one of the following:
 - CertainTeed Corporation.
 - GAF Materials Corporation. b.

2.4 RIDGE VENTS

- Rigid Ridge Vent: Manufacturer's standard, rigid section high-density polypropylene or other A. UV-stabilized plastic ridge vent for use under ridge shingles.
 - Basis-of-Design Product: Subject to compliance with requirements, provide CertainTeed, Ridge Vent 12" Filtered or comparable product by one of the following:
 - Cobra Ridge Vent; GAF Materials Corporation.

2.5 **ACCESSORIES**

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum 0.120-inch- diameter, sharp-pointed, with a minimum 3/8-inchdiameter flat head and of sufficient length to penetrate 3/4 inch into solid wood decking or extend at least 1/8 inch through OSB or plywood sheathing.
 - Shank: Barbed. 1.
 - 2. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
 - 3. Stapling of shingles will not be accepted.

METAL FLASHING AND TRIM 2.6

- A. Sheet Metal Materials - Furnish the following:
 - Aluminum Sheets ASTM B 209, alloy 3003 H14 with mill finish, minimum 0.024" thick.
- Metal Drip Edge Brake-formed sheet metal with at least a 2" roof deck flange and a 1 1/2" B. fascia flange with a 3/8" drip at lower edge. Furnish aluminum in lengths of 8' or 10'; color coordinated with the fascia, siding and soffit color.
- C. Metal Flashing - Job-cut to sizes and configurations required. Furnish same material as other sheet metal furnished.
- Vent Pipe Flashing Lead conforming to ASTM B 749, Type L51121, at least 1/16" thick. D. Provide lead sleeve sized to slip over and turn down into pipe, soldered to skirt at slope of roof extending at least 4" from pipe onto roof.
- Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's E. "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of the item.

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PART 3 - EXECUTION

3.1 **EXAMINATION**

- Examine substrates, areas, and conditions, with Installer present, for compliance with A. requirements for installation tolerances and other conditions affecting performance of the Work.
 - Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 - Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely 2. anchored; and that provisions have been made for flashings and penetrations through asphalt shingles.
- В. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
- Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck. Comply with low-B. temperature installation restrictions of underlayment manufacturer if applicable. Install lapped in direction that sheds water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller. Cover underlayment within seven days.

3.3 METAL FLASHING INSTALLATION

Install metal flashings according to recommendations in ARMA's "Residential Asphalt Roofing A. Manual" and NRCA's "NRCA Guidelines for Asphalt Shingle Roof Systems."

ASPHALT-SHINGLE INSTALLATION 3.4

- General: Install asphalt shingles according to manufacturer's written instructions, A. recommendations in ARMA's "Residential Asphalt Roofing Manual," and recommendations in NRCA's "NRCA Guidelines for Asphalt Shingle Roof Systems."
 - It is essential for best appearance to follow selected manufacturer's installation instructions for particular shingle being installed to qualify for manufacturer's warranty and to obtain coverage stated for the product.
- Install starter strip along lowest roof edge, consisting of an asphalt-shingle strip with tabs B. removed with self-sealing strip face up at roof edge.
 - Extend asphalt shingles 1/2 inch over fasciae at eaves and rakes. 1.
 - Install starter strip along rake edge. 2.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.

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- D. Nail per manufacturer's instructions exercising basic good workmanship of driving nails straight down, flush with shingle surface. Do not drive nail heads into shingle. Leave no nails exposed to weather. Use a manufacturer's recommendation for number of nails per shingle.
 - When ambient temperature during installation is below 50 deg F, seal asphalt shingles with asphalt roofing cement spots.
 - Stapling of shingles will not be accepted. 2.
- Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's E. written instructions. Fasten with roofing nails of sufficient length to penetrate sheathing.
- F. Hip and Ridge Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.
 - Fasten ridge cap asphalt shingles to cover ridge vent without obstructing airflow.

ROOFING INSTALLER'S WARRANTY 3.5

- WHEREAS < Insert name > of < Insert address >, herein called the "Roofing Installer," has A. performed roofing and associated work ("the work") on the following project:
 - Owner: < Insert name of Owner>. 1.
 - 2. Address: < Insert address>.
 - Building Name/Type: < **Insert information**>. 3.
 - Address: < Insert address>. 4.
 - Area of the Work: **Insert information**. 5.
 - Acceptance Date: < Insert date>. 6.
 - Warranty Period: < Insert time>. 7.
 - Expiration Date: < Insert date>. 8.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant the work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of the work as are necessary to correct faulty and defective work and as are necessary to maintain the work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
 - Specifically excluded from this Warranty are damages to the work and other parts of the building, and to building contents, caused by:
 - Lightning:
 - b. Peak gust wind speed exceeding 130 mph;
 - c.
 - d. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - Faulty construction of parapet walls, copings, chimneys, skylights, vents, e. equipment supports, and other edge conditions and penetrations of the work;
 - Vapor condensation on bottom of roofing; and f.

- Activity on roofing by others, including construction contractors, maintenance g. personnel, other persons, and animals, whether authorized or unauthorized by
- 2. When the work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
- 3. Roofing Installer is responsible for damage to the work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of the work.
- 4. During Warranty Period, if Owner allows alteration of the work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of the alterations, but only to the extent the alterations affect the work covered by this Warranty. If Owner engages Roofing Installer to perform the alterations, Warranty shall not become null and void unless Roofing Installer, before starting the alterations, notified Owner in writing, showing reasonable cause for claim, that the alterations would likely damage or deteriorate the work, thereby reasonably justifying a limitation or termination of this Warranty.
- During Warranty Period, if original use of roof is changed and it becomes used for, but 5. was not originally specified for, a use or service more severe than originally specified, this Warranty shall become null and void on date of the change, but only to the extent the change affects the work covered by this Warranty.
- Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, 6. defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect the work and to examine evidence of such leaks, defects, or deterioration.
- This Warranty is recognized to be the only warranty of Roofing Installer on the work and 7. shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of the work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.
- IN WITNESS THEREOF, this instrument has been duly executed this <Insert day> day of E. <Insert month>, <Insert year>.
 - Authorized Signature: < Insert signature>. 1.
 - 2. Name: <**Insert name**>.
 - Title: <**Insert title**>. 3.

END OF SECTION 073113

APPENDIX I GLOSSARY

GLOSSARY

Activity– An element in the Progress Schedule establishing a requisite step, or the time and resources required, for completing the part of the Work associated with that Activity.

Addenda— Written instruments that are used by the Owner and/or Professional to incorporate interpretations or clarifications, modifications, and other information into the Bidding Documents. An Addendum issued after Bid opening to those Bidders who submitted a Bid, for the purpose of re-bidding the Work without re-advertising, is referred to as a **post-Bid** Addendum.

Agency- Any unit, section, division, department, or other instrumentality of the State that benefits from the Work.

Alternate - Refers to work specified in the Bidding Documents for which the Bidder must bid a Bid Price.

Apparent Low Bidders: Those Bidders whose Base Bid, when added to those specific Alternates the Owner intends to accept, yields the three lowest sums of Bid and Alternates. Additional Bidders may be considered Apparent Low Bidders if their Bid, when added to those specific Alternates the Owner intends to accept, yields a sum within 10% of the lowest of the Apparent Low Bidder's sum. If a qualified disabled veteran meets the requirements of the contract solicitation, provides acceptable responses to both Part One and Part Two of the Best Value Construction Bidder Evaluation to achieve a Best Value recommendation and with the veteran's preference is the lowest responsive, responsible, best value Bidder it is considered the Apparent Low Bidder.

Archaeological Feature— Any prehistoric or historic deposit of archaeological value, as determined by a representative of a State Agency that is duly authorized to evaluate such findings and render such judgments. An Archaeological Feature deposit may include, but is not limited to Indian habitations, ceremonial sites, abandoned settlements, treasure trove, artifacts, or other objects with intrinsic archaeological value and that relate to the history and culture of the State of Michigan. The Archaeological Features are listed under Section 00800 Supplementary Conditions.

Authorized Technical Data– Information and data contained in a report of exploration and tests of subsurface conditions. Also, any physical data (dimension, location, conditions, etc.) contained in those Drawings of physical conditions of existing surface and subsurface facilities.

Best Value- The bids will be evaluated for best value based on price and qualitative components that may include but are not limited to technical design, technical approach, quality of proposed personnel, and management plans, per PA 430 of 2012.

Bid— Written offer by a Bidder for the Work, as specified, which designates the Bidder's Base Bid and Bid Prices for all Alternates. The term *Bid* includes a *re-bid*.

Bidder- The Person acting directly, or through an authorized representative, who submits a Bid directly to the Owner.

Bidding Documents - The proposed Contract Documents as advertised, and all Addenda issued before execution of the Contract.

Bid Price— The Bidder's price for a lump sum item of work, or the product of the Bidder's unit price for an item of Unit Price Work times the quantity given on the Bid Form for that item.

Bid Security— A security serving as a guarantee that the Bidder will conform to all conditions.

Bidding Requirements–The Advertisement, Instructions to Bidders, Supplementary Instructions, Information for Bidders, Bid Form, Bid Form Attachments, and qualification submittals, as advertised and as modified by Addenda, and any other Section included within Division 0 of the Bidding Documents for the purpose of governing bidding and award of the Contract.

Board- The Administrative Board of the State of Michigan.

Bond– Security furnished by the **Contractor**, as required by the Contract Documents.

Business Day- Any Day except Saturdays, Sundays and holidays observed by the Owner.

Bulletin– A request used by the **Owner** to describe a change in the Work under consideration by the **Owner** and to request the **Contractor** to submit a proposal for the corresponding adjustment in Contract Price and/or Contract Time, if any.

Calendar Day - Every day shown on the calendar, Saturdays, Sundays, and holidays included.

Cash Allowance— An **Owner**-specified sum included within the Contract Price to reimburse the **Contractor** for the <u>actual purchase/furnished cost</u> of materials and/or equipment or other designated items, as specifically provided in the Contract Documents. Although the scope (e.g., the required quantity) of any Work covered by a Cash Allowance is sufficiently detailed in the Contract

Documents for the purposes of bidding the required labor costs, Subcontract costs, construction equipment costs and general conditions costs and Fee, it is understood that the required materials, equipment or other designated items are of uncertain purchase cost at the time of Bid or are yet to be specified in more detail by the **Professional** as to quality, appearance, durability, finish and such other necessary features affecting purchase price.

Change Order— A written order issued and signed by the **Owner**, which amends the Contract Documents for changes in the Work or an adjustment in Contract Price and/or Contract Time, or both.

Contract Award— The official action of the Board, the Director-SFA or the Director-DCD awarding the Contract to the Contractor.

Contract Documents— Written and graphic documents that form the legal agreement between the **Owner** and the **Contractor**, consisting of this document, completed Bid and Contract forms, terms and conditions of the contract, specifications, drawings, addenda, Notice of Award, Notice-to-Proceed and contract change orders.

Contract Price— The total compensation, including authorized adjustments, payable by the Owner to the Contractor (subject to provisions for Unit Price Work).

Contract Times—The Contract Times for the entire Work are the periods allowed, including authorized adjustments, for Substantial Completion and final completion of the Work. The Contract Times for a designated portion of the Work are the periods allowed for Substantial Completion and final completion of any such portion of the Work, as specified in the Contract Documents.

Contractor - Business enterprise with which the Owner has entered into the Contract.

Correction Period— A period during which the **Contractor** must, in accordance with the Contract Documents, (a) correct or, if rejected, remove, and replace Defective Work, and (b) maintain warranties for materials and equipment in full force and effect.

Cost of the Work Involved— The sum of all costs that would be, or were, necessarily incurred by the **Contractor** in providing any Work Involved with the related change, less the costs that would be, or would have been, incurred by the **Contractor** to provide such Work without the related **change**.

Defective— As determined by the Professional, an adjective which when referring to or when applied to the term "Work" refers to (a) Work not conforming to the Contract Documents or not meeting the requirements of an inspection, test, or approval, or (b) Work itemized in a Punch List which the **Contractor** fails to complete or correct within a reasonable time after issuance of the Punch List by the **Professional**.

Delay— Any act or omission or other event that in any manner adversely affects or alters the schedule, progress or completion of all or any part of the Work. Delay is a generic term intended to include deferral, stoppage, slow down, interruption and extended performance, and all related hindrance, rescheduling, disruption, interference, inefficiency and productivity and production losses.

Department (DTMB) – Department of Technology, Management and Budget of the State of Michigan.

Director- The Director of the Department.

Director-SFA- The Director of DTMB State Facilities Administration.

Director-DCD- The Director of DTMB State Facilities Administration, Design and Construction Division.

Division – Each of the numbered, distinct parts (starting with Division 0) into which the Specifications are divided.

Drawings - Part of the Contract Documents showing the Work. Drawings must neither serve nor be used as Shop Drawings.

Emergency- A condition affecting the safety or protection of persons, or the Work, or property at or adjacent to the site.

State Facilities Administration (SFA)-Entity in the Department responsible for design, construction, and operations and maintenance of facilities.

Fee for the Work Involved (Fee)— An established, percentage mark-up on the Cost of the Work Involved which is allowed to the Contractor for (a) reasonable administrative costs, and (b) negotiated, reasonable profit on the Cost of the Work Involved.

Hazardous Material— Asbestos containing materials (ACMs), Polychlorinated biphenyls (PCBs), petroleum products, such construction materials as paint thinners, solvents, gasoline, oil, etc., and any other like material the manufacture, use, treatment, storage, transportation, or disposal of which is regulated by federal, state, or local Laws governing the protection of public health, natural resources, or the environment.

Invitation To Bid (ITB) - The solicitation document presenting the terms and conditions that will become part of the Contract when the Bid is accepted.

Law(s) - Means federal, state, and local statutes, ordinances, orders, rules and/or regulations.

MCL- The Michigan Compiled Laws of the State of Michigan.

Means and Methods- Includes means, methods, techniques, sequences and/or procedures applicable to the Work.

Notice of Award— Written notice accepting the Bid to the lowest responsive, responsible Bidder and designating the Contract Price (and establishing the Alternates accepted by the **Owner**).

Notice-to-Proceed— Written notice issued by the Project Director directing the Contractor to commence the construction activities and establishing the start date of the Contract Time.

On-Site Inspection— The **Professional's** on-site examination of the **Contractor's** completed or in progress Work to determine and verify to the Project Director that the quantity and quality of all Work complies with the requirements of the Contract Documents.

Owner - The State of Michigan, with whom the Contractor has entered into the Contract and for whom the Work is to be provided.

Owner Field Representative— A State employee or consultant, acting collaboratively with the Project Director, providing on-site, periodic observation and documentation of the Work for compliance with the Contract Documents.

Partial Use— The use, by the **Owner**, of a designated portion of the Work before accomplishing Substantial Completion of the entire Work. Partial Use does not mean Substantial Completion of the portion of the Work placed in use by the **Owner**.

Person-Individuals, partnerships, corporations, receivers, trustees, joint ventures or any other legal entity and any combinations of any of them.

Political Subdivision– Any county, city, village, or other local unit of the State, including any agency, department, or instrumentality of any such county, city, village, or other local unit.

Post–Bid Submittal– A Qualification Submittal required of the Bidder selected under Section 00100 - 22 before Contract Award, and which is used by the Owner in the evaluation of the Bid of the selected Bidder.

Professional Services Contractor (PSC or **Professional**) – The individual or business entity who has the authority to practice the design disciplines required by the Contract Documents. An Agency with appropriate licensing may replace the PSC in their role if a consultant is not used.

Project The total construction, which includes the Work and possibly other work completed by others, as indicated in the Contract Documents.

Project Director- Designated State employee(s) (a) Responsible for directing and supervising the **Professional's** services during the period allowed for completion of the Work; and/or (b) Acting as representative for the **Owner** and for the enforcement of the Contract Documents, approving payment to the **Contractor** and coordinating the activities of the State, **Owner, Professional** and **Contractor**.

Project Schedule— Work Schedule that shows the **Contractor's** approach to planning, scheduling, and execution of the Work and that accurately portrays completed Work as to sequencing and timing, as provided in the Contract Documents.

Project Specifications— The Contract Documents organized into Divisions. "Technical Specifications" means Divisions of the Specifications consisting of technical descriptions of materials, equipment, construction systems, standards, and workmanship.

Provisionary Allowance— An amount included within the Contract Price to reimburse the **Contractor** for the cost to furnish and perform Work that is uncertain because, for example, it is indeterminate in scope and may not be shown or detailed in the Contract Documents.

Punch List – A list of minor items to be completed or corrected by the **Contractor**, any one of which do not materially impair the use of the Work for its intended purpose.

Qualified Disabled Veteran (QDV)- QDV as defined by Public Act 22 of 2010, MCL 18.1241.3 and supported by a DD214 Proof of Service and Discharge, a Veterans Administration rating decision letter, proof of disability (if the disability is not indicated on the DD214), and appropriate legal documents setting forth the 51% natural persons QDV ownership.

Record Documents– Drawings, Specifications, Addenda, Change Orders, Change Authorizations, Bulletins, inspection, test and approval reports, photographs, written clarifications and interpretations and all other documents recording, or annotated to show, all revisions and deviations between the as-built installation and the Contract Documents, all approved Submittals and all clarifications and interpretations.

Records- Books, reports, documents, electronic data, and other evidence relating to the bidding, award and furnishing and performance of the Work.

Recycled Material– Recycled paper products, structural materials made from recycled plastics, re-refined lubricating oils, reclaimed solvents, recycled asphalt and concrete, recycled glass products, re-treaded tires, ferrous metals containing recycled scrap metals and all other materials that contain (a) waste materials generated by a business or consumer, (b) materials that have served their intended purpose, and/or (c) materials that have been separated from solid waste for collection, recycling and disposition in the percentage determined by the State as provided by Law.

Request for Payment— The form provided by the **Owner** (Payment Request DTMB-0440) to be used by the **Contractor** in requesting payment for Work completed, which must enclose all supporting information required by the Contract Documents.

Schedule of Values– A schedule of pay items, which subdivides the Work into its various parts and which details, for each itemized part, cost and pricing information required for making payments for Work performed. The sum of all pay item costs in the Schedule of Values must equal the Contract Price for the Work.

Shop Drawings– Includes drawings, diagrams, illustrations, standard schedules, performance charts, instructions and other data prepared by or for the **Contractor** to illustrate some part of the Work, or by a Supplier and submitted by the **Contractor** to illustrate items of material or equipment.

Soil Erosion and Sedimentation Control— The planning, design and installation of appropriate Best Management Practices designed and engineered specifically to reduce or eliminate the off-site migration of soils via water runoff, wind, vehicle tracking, etc. Soil erosion and sedimentation control in the State of Michigan is regulated under The Natural Resources Environmental Protection Act; Soil Erosion and Sedimentation Control, 1994 PA 451, Part 91, as amended, MCL 324.9101 et seq. Soil erosion and sedimentation control associated with this Contract is monitored and enforced by the DTMB-SFA.

State— The State of Michigan in its governmental capacity, including its departments, divisions, agencies, boards, offices, commissions, officers, employees, and agents. Non-capitalized references to a state refer to a state other than the State of Michigan.

State Construction Code The Michigan State Construction Code Act, 1972 PA 230, as amended, MCL 125.1501 et seq.

Subcontractor— A Person having an agreement with the Contractor to provide labor at the site and furnishing materials and/or equipment for incorporation into the Work.

Submittals– Includes technical Submittals, Progress Schedules and those other documents required for submission by the Contract Documents. The term "technical Submittal" includes Shop Drawings, brochures, samples, Operation and Maintenance (O&M) Manuals, test procedures and any other Submittal the Contract Documents require the **Contractor** to submit to demonstrate how the items covered, after installation or incorporation into the Work, will conform to the information given in the Contract Documents and be compatible with the design of the completed Work as a functioning whole as indicated in the Contract Documents.

Substantial Completion— The Work, or a portion of the Work designated in the Contract Documents as eligible for separate Substantial Completion, has been completed in accordance with the Contract Documents as determined by the PSC, to the extent that the **Owner** can use or occupy the entire Work, or the designated portion of the Work, for the use intended without any outstanding, concurrent Work at the site, except as may be required to complete or correct Punch List items.

Supplier– A manufacturer or fabricator, or a distributor, material man or vendor representing a manufacturer or fabricator, who has an agreement with the Contractor to furnish materials and/or equipment.

Underground Utilities-Pipelines, piping, conduit, duct, cables, wells, tanks, tunnels and appurtenances, or other similar facilities, installed underground to convey or support conveyance of potable water, sprinkler or irrigation water, fire protection systems, electricity, gases, steam, petroleum products, sewerage and drainage removal, telephone, communications, cable TV, traffic, or control systems.

Unit Price Work— The work involving specified quantities (i.e., related Work quantities) which, when performed, is measured by the **Professional** and paid using the measured quantities and unit prices contained in the Contract Documents. Performance of Unit Price Work for undefined quantities is contingent upon conditions encountered at the site, as determined, and authorized by the **Professional**.

Unit Price Work, Specific— Work of <u>specified and defined</u> quantities (i.e., quantities are detailed in, and can be taken-off from, the Contract Documents) that when performed is measured by the **Professional** and paid based on the measured quantities and unit prices contained in the Contract Documents.

Work- (as in "the Work," "the entire Work")— The entire completed Construction required by the Contract Documents. The Work results from furnishing and performing all services, obligations, responsibilities, management, supervision, labor, materials, equipment, construction equipment, general conditions, permits, taxes, patent fees and royalties, testing, inspection and approval responsibilities, warranties, temporary facilities, small tools, field supplies, Bonds, insurance, mobilization, close-out, overhead and all connections, devices and incidental items of any kind or nature required and/or made necessary by the Contract Documents.

Work Involved, any Work Involved—Existing or prospective Work (a) reflected in any notice, proposal, or claim, or (b) reflected in changes ordered or in process, or (c) affected by Delay.

APPENDIX II SPECIAL WORKING CONDITIONS

DEPARTMENT OF MILITARY AND VETERANS AFFAIRS

he work comprising this Project will be performed at Fort Custer Training Center, and the contractor must comply with the following special working rules:

- 1. Access to Fort Custer Training Center.
 - a. Contractor, sub-contractors and employees that will work on a regular basis at the installation are required to have identification badges.
 - b. Delivery vehicles and infrequent employees for a specific short term purpose (no more than 3 days) shall provide government identification, and be escorted to site by authorized contractor representative, unless individual has been identified and authorized unaccompanied access.
 - c. Identification badges, if required, will be furnished without charge. Application for and use of badges will be as directed:
 - i. Contractor will provide memorandum on company letterhead and signed by authorized individual to FCTC Physical Security office or designee listing names of personnel, government identification information (driver's license #) and time period of employment for work on Fort Custer. Contractor will validate and complete EMPLOYMENT ELIGIBILITY VERIFICATION (DHS FORM I-9) for all personnel requesting badges and maintain a copy of this form through the duration of the contract. Government reserves the right to request this verification. This form is available at http://www.uscis.gov/files/form/I-9 IFR 02-02-09.pdf, it has also been included as a form attachment.
 - ii. If badges are not issued, individuals may be listed on the valid access roster and government identification may be checked at access point.
 - iii. Post commander reserves the right to change this procedure as necessary to ensure the security of the installation at any time.
 - iv. All employees of the contractor will be required to have identification card/badge furnished by Range Control. Employees will have the card/badge with them at all times.
 - d. Standard Working Hours. Contractor will be allowed to work within or on National Guard Training Site from 7:00 a.m. to 5:30 p.m. No work may be performed on Saturdays or Sundays or outside of the designated times without written permission from the DMVA onsite inspector. The Post Commander or their designee may arrange other time schedules.
 - e. All employees of the contractor may be subject to individual body search each time they enter the Training Site. Packages or containers of any kind may be opened for inspection. No firearms, explosives, drugs or alcohol are authorized on installation.
 - f. All trucks and other mobile equipment may be subject to inspection both on arrival and departure from the Training Site.
 - g. Failure to obtain entry approval will not affect the contract price or time of completion.

2. Installation Activities.

- a. Contractor and employees must follow rules pertaining to security and parking as established by the Post Commander. Contractor must observe all off-limit restricted areas beyond which no unauthorized personnel may trespass.
- b. Official contract activity and installation travel only to official business. Restrict employees/representatives to the work site and control travel directly to and from the work/ business site.
- Secure vehicles and equipment when not attended, contractor is responsible for assigned site as recorded in contract.
- d. There will be no exchange, loaning, or borrowing of tools, equipment, or manpower between Armory personnel and the contractor.
- e. Installation security personnel may inspect and search areas under construction at any time, including the contractor's equipment, in the performance of their security duties.
- 3. Special Contractor Responsibilities.
 - a. Keys to certain gates/locks may be assigned to the contractor. Such doors must be kept locked at all times. Upon completion of contract work the contractor will return all keys to DMVA. The contractor will bear the cost for permanently securing the Training Site when keys are lost or not returned to DMVA (i.e. rekeying all locks, doors and gates that the lost key is used to open).
 - b. A dedicated project superintendent shall be at the project site any time work is occurring. The intent of the superintendent is onsite supervision and NOT performance of skilled or unskilled work outside of supervision.
 - c. All fuel containers shall have Fort Custer approved secondary containment.
 - d. Contractor is responsible for control and security of Contractor-owned equipment and materials at the work site. Report immediately missing/lost/stolen property to post security and COTR.

- e. Permission to interrupt any Activity roads, and/or utility service shall be requested in writing a minimum of 7 calendar days prior to the desired date of interruption.
- f. No Smoking Policy. Smoking is prohibited within all buildings on installations. Smoking areas must be identified 50' from any building/structural entrance.
- g. Utility Cutovers and Interruptions. Make utility cutovers and interruptions after normal working hours or on Government holidays. Ensure schedule authorization as noted above.
- h. All employees may be required to receive a UXO brief prior to working, based on work location and activities.
- 4. The Post Commander retains the right to revise these "Special Working Conditions" as required to meet Post needs.

(EXAMPLE OF REQUEST FOR ACCESS)

YOUR COMPANY'S NAME Street Address City, State, Zip Code

Date

Name John Doe	<u>DOB</u> 12/18/1977	<u>Driver's Lic#</u> D123456789012	Gate Access Expiration	
			l below. These individuals are working for: npletion date of:	(Your
SUBJECT: Fort Custer Tra	aining Center Acce	ess		
MEMORANDUM FOR 1S	G Mikolajczyk, FC	TC Operations, 2501 26th Street	Augusta, Michigan 49012-9205	

- 2. These individuals have completed an DHS Form I-9, work authorization has been verified and a copy is on record.
- 3. The point of contact for this memorandum is Jane Doe at (XXX) XXX-XXXX.

(Authorized Signature)
John S. Smith
Your Title

Fax or e-mail this request to 1SG Mikolajczyk at 269-731-6639 norris.mikolajczyk@us.army.mil

APPENDIX III SPECIAL PROJECT PROCEDURES

SOIL EROSION AND SEDIMENTATION CONTROL PROJECT PROCEDURES FOR CONTRACTORS ON DTMB OWNED AND MANAGED PROPERTIES

- 1. Comply with Part 91, Soil Erosion and Sedimentation Control of the Natural Resources and Environmental Protection Act 1994 PA 451, as amended.
- 2. Contact the DTMB, SFA, Design and Construction Division to discuss the implementation of soil erosion and sedimentation control (SESC) on the Project with DTMB SESC Officer. Phone (517) 388-3045 or Email mcgarryc@michigan.gov.
- 3. Following the award of a contract, the Contractor will be required to prepare and issue for approval an SESC Implementation Plan, which indicates the Contractor's intended implementation of SESC on the project including a schedule and sequence. The Environmental Health and Safety Section, upon approval of the implementation plan, will issue to the Contractor an "Authorization to Proceed with Earth Change" document, which is to be posted at the job site. This document is issued in lieu of a permit from the county. Earthwork shall not begin prior to the issuance of this Authorization. Upon receipt of the Authorization document, the Contractor may begin earth change activities.
- 4. See below the "Checklist for Contractor's SESC Implementation Plan" for details of the required information necessary for the Contractor to create the SESC Implementation Plan. The intent of this plan is to ensure that the Contractor has reviewed and understands the SESC provisions within the plans and specifications.
- CHECKLIST FOR CONTRACTOR'S SOIL EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION PLAN (For projects that include earth changes or disturb existing vegetation):

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION SOIL EROSION AND SEDIMENTATION CONTROL PROGRAM P.O. Box 30026, Lansing, Michigan 48909

PROJECT TITLE: PROJECT LOCATION: PROJECT FILE NUMBER: INDEX NUMBER:

Prior to the start of earthwork, the Contractor must submit a Soil Erosion and Sedimentation Control (SESC) Implementation Plan to the Michigan Department of Technology, Management and Budget, Soil Erosion and Sedimentation Control Program. The intent of this plan is to ensure that the Contractor has reviewed and understands the SESC provisions within the plans and specifications. The following checklist will provide Contractors with assistance in creating the SESC Implementation Plan.

The SESC Implementation Plan must include:

1. □ A written plan or letter demonstrating:
□ The Contractor's means and methods for the implementation of SESC provisions included within the plans and specifications and compliance with the provisions of Part 91 of PA 451 of 1994, as amended.
□ The Contractor's plan for dust control.
□ The Contractor's plan for inspection and maintenance of temporary SESCs.

2. □ A map, location plan, drawing, or amended copy of the Project SESC or grading plan showing:
□ The locations of any stockpiles of soil associated with the Project
□ The temporary SESC controls associated with stockpiles of soil
□ The Contractor's suggested or proposed additions or relocations of any temporary or permanent SESCs. associated with the Project plans and specifications (subject to approval by Engineer and DTMB)
□ Location of site entrances, exits and vehicle routes
□ Location of site superintendent's/project manager's site trailer or office (for SESC Inspector check-in)

3. □ A schedule for the installation and removal of temporary controls and the installation of permanent soil erosion and

Submit the above items to the above address.

Upon approval of the Contractor's plan, an "Authorization to Proceed with Earth Change" will be issued by DTMB, Design and Construction Division.

sedimentation controls in relation to the overall construction schedule.

DEMOLITION/REMODELING PROJECT PROCEDURES

Furnish all equipment, materials, labor, and services necessary to complete all building demolition required in connection with the existing building, in order to permit the installation of new Work. The goal of the Owner is to generate the least amount of waste or debris possible. However, inevitable waste and debris that are generated shall be reused, salvaged, or recycled, and disposal in landfills shall be minimized to the extent economically feasible. The Contractor will be required to prepare waste management plan for the collection, handling, storage, transportation, and disposal of the waste generated at the construction site for the Owner's review and approval. The Contractor will be required to produce waste management progress reports.

- 1. Locations: Notations are made in various places on the Drawings to call attention to building demolition which is required; however, these Drawings are not intended to show every item to be removed. The Contractor and the Subcontractors for the various trades must remove the materials related to their respective trades as required to permit the construction of the new Work as shown.
- 2. Permits: The Contractor must secure from the appropriate agencies all required permits necessary for proper execution of the work before starting work on the project site. All fees for securing the permits must be paid by the Contractor, including all inspection costs which may be legally assessed by the Bureau of Construction Codes in accordance with the authority granted under the Public Act 1980 PA 371, as amended.
- Enclosures: Where it is necessary to make alterations to walls, floors or roof of the existing building, the Contractor must provide and maintain dustproof partitions to separate the parts where Work is being done from the adjoining parts occupied by the State Agency. Where any parts are opened and exposed to the elements, the Contractor must provide weather tight enclosures to fully protect the structure and its contents.
- Waste Management Plan: The management plan must address waste source identification and separation, returns, reuse and salvage, recycling, landfill options, alternatives to landfilling, materials handling procedures and transportation.
- Preparation: Protect all existing Work that is to remain and restore in an approved manner any such Work that becomes damaged.
 - 5.1 Rubbish and debris resulting from the Work must be removed immediately from the site by the Contractor. However, any recyclable materials must be recycled; the Contractor will be required to use alternatives to landfills for waste disposal such as reuse or recycle of asphalt, bricks, concrete, masonry, plastics, paint, glass, carpet, metals, wood, drywall, insulation, and any other waste materials to the extent practical.
 - 5.2 Unless otherwise specified, the Agency will remove existing furniture, drapery tracks, draperies, window blinds, and other equipment items, which might interfere with the new construction.
- Coordination: Demolition work, in connection with any new unit of Work, must not be commenced until all new materials required for completion of that new item of Work are at hand.
- Waste Management Plan Progress Reports: Submit an updated report with the payment requests. The progress reports shall
 - a. The amount of waste sent to a landfill, tipping fees paid and the total disposal cost. Include supporting documents such as manifests, weight tickets, receipts and/or invoices.
 - Records for each material recycled/reused/salvaged from the project including the amount, date removed from the job site, destination, transportation cost, recycled materials, and the net cost/ savings.
 - Breakdown of waste by type generated to date.
 - d. Recycling/salvage/landfill rates.
 - Percent of waste recycled/salvaged to date.

HAZARDOUS MATERIALS PROJECT PROCEDURES

- 1. The Contractor must use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material in accordance with all federal, state, and local Laws. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions.
- 2. This project has been identified by the DTMB-SFA as having a possibility of containing Hazardous Waste materials to be legally removed from the Project job site to complete the Work as described in the Proposal and Contract. If removal of friable asbestos material is required, the Contractor must contact the Air Quality Division, Department of Environment, Great Lakes, and Energy, at (517) 284-6773, for a permit and furnish all training, labor, materials, services, insurance, and equipment necessary to carry out the removal operations of all Hazardous Materials from the Project job site, as identified by the Scope of Work, or encountered on the Project job site, in accordance with State and Federal Hazardous Waste Codes. A Contract Change Order will be written to modify the existing Contract to pay for the additional cost.
- 3. Environmental Hazards (air, water, land and liquid industrial) are handled by the Waste and Hazardous Materials Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE) in carrying out the requirements of the Federal Environmental Protection Agency (EPA). For general information and/or a copy of the latest regulations and publications call (517) 335-2690.
- 4. The Michigan Occupational Safety and Health Administration (MIOSHA) provides protection and regulations for the safety and health of workers. The Department of Licensing and Regulatory Affairs provides for the safety of workers. The Department of Community Health provides for the health of workers (517/373-3740) (TDD 517/373-3573).
 - 4.1 Contractor must post any applicable State and/or Federal government regulations at the job site in a prominent location.
 - 4.2 Contractor must be responsible for training their workers in safe work practices and in proper removal methods when encountering hazardous chemicals.
- 5. Applicable Regulations:
 - 5.1 Natural Resources and Environmental Protection Act PA 451 of 1994, as amended, including Part 111 Hazardous Waste Management, Part 121 Liquid Industrial Waste and Part 147 PCB compounds.
 - 5.2 RCRA, 1976 Resource Conservation and Recovery Act: This federal statute regulates generation, transportation, treatment, storage, or disposal of hazardous wastes nationally.
 - 5.3 TSCA, 1979 Toxic Substances Control Act: This statute regulates the generation, transportation, storage, and disposal of industrial chemicals such as PCBs.
- 6. Definitions: Hazardous substances are ignitable, corrosive, reactive, and/or toxic, based on their chemical characteristics.
 - 6.1 Under Federal and Michigan Law, a Small Quantity Generator of hazardous waste provides from 220 to less than 2,000 lbs./month or never accumulates 2,200 lbs. or more.
 - 6.2 A Generator size provider of hazardous waste provides 2,200 lbs. or more/month or accumulates above 2,200 lbs.
- 7. Disposals: To use an off-site hazardous waste disposal facility, the Contractor must use the Uniform Hazardous Waste Manifest (shipping paper). Small quantities of hazardous waste may not be disposed of in sanitary landfills used for solid waste.
- 8. Federal, state, and local Laws and regulations may apply to the storage, handling and disposal of Hazardous Materials and wastes at each State Agency. Contact the **Environmental Assistance Center** of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) at **1-800-662-9278**, Fax to: 517-241-0673 or e-mail to: DEQ-EAD-env-assist@michigan.gov for general EGLE information including direct and referral assistance on air, water and wetlands permits; contaminated site cleanups; underground storage tank removals and remediation; hazardous and solid waste disposal; pollution prevention and recycling; and compliance-related assistance. The Center provides businesses, municipalities, and the public with a single point of access to EGLE's environmental programs.

ASBESTOS ABATEMENT PROJECT PROCEDURES

Should this Work require the renovation or demolition of a building or structure initially constructed on or prior to 1980, the Contractor will use the attached copy of a Comprehensive Asbestos Building Survey for those portions of the building or structure being impacted and must plan his or her work to minimize disturbance of any known or assumed asbestos containing materials (ACM). In addition, if this building or structure was constructed on or prior to 1980, the Contractor's On-Site Superintendent and all Subcontractor On-Site Superintendents for trades that could potentially disturb known or assumed ACM, must, as a minimum, have and provide documentation of current Asbestos Awareness Training.

If the Comprehensive Asbestos Building Survey identifies known or assumed ACM that will potentially be disturbed as a part of the Contractor's renovation or demolition activities, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. If required, the Contractor must provide the Owner a minimum of 10 working day notification prior to the start of any asbestos abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays).

If the Contractor encounters a suspected ACM that was not previously identified within the Comprehensive Asbestos Building Survey, the Contractor must immediately stop all affected work, give written notice to the Owner of the conditions encountered, and take appropriate health and safety precautions. If, after providing Owner notification, the Contractor is directed to sample and/or remove the suspected ACM in question, a Contract Change Order will be written to modify the existing Contract to pay for the additional cost. Any abatement shall be completed in accordance with the requirements of this Section.

If removal of ACM is required, removal must be completed by a contractor currently licensed to remove asbestos by the State of Michigan, Department of Licensing and Regulatory Affairs (DLARA) Asbestos Program and abatement must be performed in accordance with all federal, state, and local Laws and Regulations. Prior to commencing any asbestos abatement activities, the licensed abatement contractor must submit, as required by Federal, State and Local Laws and Regulations, a "Notification of Intent to Renovate/Demolish" to both the State of Michigan, Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division and to the DLARA, Asbestos Program, to comply with National Emission Standards for Hazardous Air Pollutants (NESHAP), and the Clean Air Act (CAA). All regulated ACM must be disposed of at an approved Type II (general refuse) landfill and must be in leak-tight wrapping or containers. ACM that is non friable and is not in poor condition or will not become regulated ACM at any time can be disposed of in a Type III (construction debris) landfill.

At the completion of each abatement activity, the Contractor must perform clearance testing in accordance with National Institute for Occupational Safety and Health (NIOSH) 582 "Sampling and Evaluating Airborne Asbestos Dust". All air samples shall indicate concentrations of less than 0.01 fibers/cc for clearance to be met. Clearance testing shall be performed by a third-party Asbestos Consultant. The Asbestos Consultant selected by the Contractor shall be experienced and knowledgeable about the methods for asbestos air sampling and be able to select representative numbers and locations of samples. It is mandatory that the Asbestos Consultant's on-site hygienist performing sampling and analysis have certification that he/she has passed a NIOSH 582 or equivalent course.

The NESHAP asbestos regulations, notification form, guidelines and fact sheets are available on EGLE's web site www.michigan.gov/egle under heading Air; then click on Compliance; then click on Asbestos NESHAP Program. For guidelines on submitting notifications pursuant to the Asbestos Contractors Licensing Act, contact the DLARA, Occupational Health Division, Asbestos Program at (517) 322-1320 or visit DLARA's web site www.michigan.gov/asbestos.

LEAD ABATEMENT PROJECT PROCEDURES

Should this Work require the renovation or demolition of a building or structure, the workers are assumed to be exposed to lead or materials containing lead above acceptable levels until proven otherwise through personal air sampling and analysis. The Contractor shall take all steps necessary to assure that his/her employees, are not exposed to lead at concentrations greater than the Permissible Exposure Limit as per the State of Michigan Department of Licensing and Regulatory Affairs Occupational Health Standards Part 603 "Lead Exposure in Construction". In addition, the Contractor shall convey this same requirement to all subcontractors that may be under his/her control.

The employer shall comply with the Michigan Lead Abatement Act, as amended, and the Lead Hazard Control rules and must communicate information concerning lead hazards according to the requirements of Michigan Occupational Safety and Health Administration (MIOSHA) Part 603 and the Occupational Safety and Health Administration's (OSHA's) Hazard Communication Standard for the construction industry, 29 CFR 1926.59, including but not limited to safety equipment (e.g. personal fit-tested and approved respirators and protective clothing), worker rotation (on a short-cycle and regular basis), working practices (e.g. sanding, cutting, grinding, abraded, burning and heat-gun stripping of lead based paint are not allowed), the requirements concerning warning signs and labels, Safety Data Sheets (SDS), and employee information and training. Employers shall comply with the requirements of 29 CFR 1926.62(I) - Employee Information and Training.

If lead or materials containing lead will be disturbed as a part of the work to be performed, the Contractor must remove, transport, and dispose of these materials at no additional cost to the Owner and prior to any other work taking place within the immediate vicinity of said material. The Contractor must provide the Owner a minimum 10 working day notification prior to the start of any lead abatement activities with abatement in occupied buildings being completed even if they will be conducted during off hours (nights, weekends, and state holidays). Abatement is defined as an activity specifically designed to permanently remove lead paint, lead-contaminated dust or other lead containing materials, the installation of a permanent enclosure or encapsulation of lead paint or other lead containing materials, the replacement of lead-painted surfaces or fixtures, the removal or covering of lead-contaminated soil, and any preparation, cleanup, disposal, and post-abatement clearance testing associated with these activities. Renovation, remodeling, landscaping, or other activity, that is not designed to permanently eliminate lead paint hazards, but is instead designed to repair, restore, or remodel a structure, or housing unit even though the activity may incidentally result in a reduction or elimination of a lead paint hazard is not considered abatement.

If abatement of lead or materials containing lead is required, abatement must be completed by a qualified Lead Abatement Contractor. In addition, Specifications for the Lead Abatement should be based upon a Lead Inspection/Risk Assessment report. The Lead Inspection/Risk Assessment report and clearance testing upon completion should be performed by a Certified Inspector or Risk Assessor. Lead abatement including clearance testing shall be performed in accordance with the State of Michigan. Lead Abatement Act, Part 54A Lead Abatement and with all other federal, state, and local Laws and Regulations that may apply.

For additional information about certifications, guidance, and regulations for lead hazard control activities, visit www.michigan.gov/lead.

APPENDIX IV WAGE RATES

"General Decision Number: MI20250079 02/21/2025

Superseded General Decision Number: MI20240079

State: Michigan

Construction Type: Building

County: Calhoun County in Michigan.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

| If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:

- l. Executive Order 14026 generally applies to the contract.
- 1. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.

If the contract was awarded on |. Executive Order 13658 or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:

- generally applies to the contract.
- |. The contractor must pay all| covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number

Publication Date

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01/03/2025 01/24/2025

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ASBE0047-002 07/01/2024

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	.\$ 38.00	21.60
BOIL0169-001 01/01/2024		
	Rates	Fringes
BOILERMAKER	· · · · · · · · · · · · · · · · · · ·	35.68
BRMI0009-031 08/01/2024		
	Rates	Fringes
BRICKLAYER TILE FINISHER TILE SETTER	.\$ 26.24	24.26 21.13 22.20
CARP0525-003 06/01/2023		
	Rates	Fringes
CARPENTER, Includes Acoustical Ceiling Installation, Drywall Hanging, and Form Work		21.42
CARP1102-001 06/01/2024		
	Rates	Fringes
MILLWRIGHT	•	26.47
ELEC0445-011 05/31/2024		
	Rates	Fringes
ELECTRICIAN	.\$ 38.96	25.14
	Rates	Fringes
OPERATOR: Power Equipment GROUP 1	.\$ 43.93 .\$ 42.25 .\$ 39.57 .\$ 33.37	25.25 25.25 25.25 25.25 25.25 25.25 25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 per hour above the group 1 rate.

Crane operator with main boom and jib 400' or longer: \$3.00

per hour above the group 1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of

July, Labor Day, Thanksgiving Day and Christmas Day. POWER EQUIPMENT OPERATOR CLASSIFICATIONS GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer. GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick GROUP 3: Backhoe/Excavator/Trackhoe; Crane; Concrete Pump; Grader/Blade; Highlift; Hoist; Loader; Roller; Scraper; Stiff Leg Derrick; Trencher GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift) GROUP 5: Boom Truck (non-swinging) GROUP 6: Fork Truck (20' lift and under for masonry work) GROUP 7: Oiler IRON0025-005 06/01/2024 Rates Fringes IRONWORKER (REINFORCING).....\$ 31.00 28.91 IRONWORKER (STRUCTURAL)......\$ 31.00 28.91 LAB00355-022 06/01/2024 Rates Fringes LABORER Common or General; Grade Checker; Mason Tender -Brick; Mason Tender -Cement/Concrete; Sandblaster.....\$ 28.56 12.95 Pipelayer.....\$ 20.34 12.85 PAIN0845-013 06/01/2024 Rates Fringes PAINTER: Brush and Roller.....\$ 27.07 16.56 PAINTER: Drywall 13.35 16.56 Finishing/Taping.....\$ 27.32 PAINTER: Spray.....\$ 27.07 PLAS0016-007 04/01/2014 Rates Fringes PLASTERER....\$ 21.18 12.43 PLUM0333-006 06/01/2024 Rates Fringes PIPEFITTER, Includes HVAC

Pipe and Unit Installation.....\$ 44.79

PLUMBER, Excludes HVAC Pipe

25.43

and	Unit	Installation.	\$ 44.79	25.43

FOOTNOTE:

Paid Holidays: Memorial Day, Independence Day and Labor Day, if the employee works the work day preceding and following the holiday unless proven illness or injury prevents the employee from working.

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	Rates	Fringes
ROOFER	.\$ 30.03	16.84
* SFMI0669-001 01/01/2025		
	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers)	.\$ 41.34	27.39
SHEE0007-004 05/01/2023		
	Rates	Fringes
SHEET METAL WORKER (Including		

HVAC Duct Installation; Excluding HVAC System Installation).....

Installation).....\$ 38.09 19.66

^{*} SUMI2011-004 02/01/2011

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	\$ 25.23	1.80
IRONWORKER, ORNAMENTAL	\$ 18.48	7.93
LABORER: Landscape & Irrigation	\$ 10.38 **	0.50
OPERATOR: Bulldozer	\$ 19.68	6.64
OPERATOR: Compactor	\$ 17.68 **	6.70
OPERATOR: Tractor	\$ 19.10	8.48
TRUCK DRIVER, Includes Dump and Tandem Truck	\$ 17.26 **	11.42
TRUCK DRIVER: Lowboy Truck	\$ 14.50 **	0.44
TRUCK DRIVER: Tractor Haul Truck	•	1.18

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

^{**} Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658

(\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at

https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

- 1) Has there been an initial decision in the matter? This can be:
 - a) a survey underlying a wage determination
 - b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210.

END OF GENERAL DECISION"