



**2013 Bond Program
Series 2, Bid Package #24**

Boulan Old Office Renovation

PROJECT MANUAL

Issued: June 01, 2018

Barton
 **Malow**



**SECTION 00010
PROJECT MANUAL
TABLE OF CONTENTS**

INTRODUCTORY INFORMATION**ISSUE DATE**

00001	Project Manual Cover (<i>Cover Sheet</i>)	June 1, 2018
00010	Table of Contents	June 1, 2018
00015	<i>Listing of Documents</i>	June 1, 2018
00030	Information and Identities	June 1, 2018

BIDDING REQUIREMENTS

00100	Advertisement to Bid	June 1, 2018
00200	Instructions to Bidders	June 1, 2018
00210	Description of Work/Special Provisions	June 1, 2018
00220	Work Scopes	June 1, 2018
	060000 – General Trades	
	230000 – Mechanical	
	230000 – Temperature Controls	
	260000 – Electrical	
00230	Schedule and Phasing	June 1, 2018
00400	Bid Proposal Form	June 1, 2018
004100	Familial Relationship Enclosure Form/ Iran Economic Sanctions Act Certification	June 1, 2018

CONTRACTING REQUIREMENTS**ISSUE DATE**

00500	Agreement Form (Contract)	June 1, 2018
00810	On-Site Project Safety and Loss Control Program	June 1, 2018
00840	Hazardous Materials	June 1, 2018
00870	Labor Relations	June 1, 2018
00880	Regulatory Requirements	June 1, 2018

DIVISION 1 GENERAL REQUIREMENTS

01140	Use of Premises	June 1, 2018
01250	Changes in the Work	June 1, 2018
01290	Payment Procedures	June 1, 2018
01310	Meetings	June 1, 2018
01320	Communications	June 1, 2018
01330	Submittals	June 1, 2018
01360	Coordination (General)	June 1, 2018
01370	Coordination Drawings	June 1, 2018
01400	Quality Requirements	June 1, 2018
01450	Testing and Inspection Services	June 1, 2018
01500	Interim Life Safety Plan	June 1, 2018
01520	Temporary Construction	June 1, 2018
01530	Field Engineering and Layout	June 1, 2018
01540	Cutting and Patching	June 1, 2018
01550	Clean-up and Final Cleaning	June 1, 2018
01600	Forms	June 1, 2018
01630	Product Substitutions	June 1, 2018
01700	Contract Close-out	June 1, 2018
01720	Project Record Documents	June 1, 2018
01730	Operations and Maintenance Data	June 1, 2018

01740	Warrantees and Guarantees	June 1, 2018
01750	Systems Demonstration, Training and Start-up	June 1, 2018

OTHER DOCUMENTS ISSUED FOR BID PACKAGE NUMBER

- Division 0 Conditions of The Contract and Division 1 General Requirements are found in the Project Manual, included herein
- Project Manual issued by Barton Malow Company dated June 1, 2018
- TMP Associates Technical Specifications dated June 1, 2018
- TMP Associates Drawings dated June 1, 2018

SECTION 00015
Listing of Drawings

LIST OF DRAWINGS

<u>SHEET NO.</u>	<u>TITLE</u>
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END OF SECTION 00015

**SECTION 00030
PROJECT MANUAL
INFORMATION AND IDENTITIES**

This Project Manual has been prepared by CM and contains the Bidding and Contract Requirements for **Boulan old office renovation**

PROJECT:	Boulan Old Office Renovation
CONSTRUCTION MANAGER: (Direct all Questions to CM)	Barton Malow Company 1140 Rankin Drive Troy, MI 48083 Christa Amalio Phone: 586.295.1412 Email: Christa.Amalio@bartonmalow.com
OWNER:	Troy School District 1140 Rankin Troy, MI 48083
ARCHITECT:	TMP Architecture 1191 W. Square Lake Road Bloomfield Hills, MI 48302 Phone: (248) 338-4561

SECTION 00100
Advertisement to Bid

1. Barton Malow Company requests Bid Proposals on behalf of Troy School District for the construction of the – **Series 2, Bid Package 24- Boulan old office renovation**. Bid Proposals will be received:

- 1.1. By delivery or mail, no later than 10:00 a.m. local time on Tuesday, June 19, 2018 at 1140 Rankin St. Troy, MI 48098.
- 1.2. To the attention of:

Todd Hensley
Troy School District
1140 Rankin
Troy, MI 48083

2. Proposals must be sealed with Bidder's name on the outside of the envelope and designated as follows:

Sealed Proposal

Series 2, Bid Package 24 – Boulan Old Office Renovation

Bid Category:

000000 – Bid Category Name

Contractor Name, Address, Phone Number

3. Proposals shall be based on the requirements set forth in the Bidding Documents:

Bid Category:

060000 - General Trades

230000 - Temperature Controls

230000 - Mechanical

260000 - Electrical

4. Accepted Bidders will be required, as a condition precedent to award of Contract, to furnish, satisfactory Performance Bond and Payment Bond, and Certificates of Insurance as required in the Project Manual.
5. Unless otherwise specifically set forth, this Project is subject to state sales and/or use taxes, and Bidder is required to include such taxes in its Bid Proposal.
6. Barton Malow Company has been contracted by the Owner in the capacity of CM for the Project, and shall act as representative of the Owner to the extent required/allowed under its Owner contract. Hereafter Barton Malow Company shall be referred to as the “CM”.
7. Bid Proposals will be publicly opened by Troy School District, evaluated by CM, Owner and the Architect, with recommended awards subsequently made by Barton Malow Company. ***The Owner shall not open, consider, or accept a Bid Proposal that is received after the date and time specified for bid submission in this Advertisement for Bids.***
8. Bidding Documents will be available for examination and distribution on or after June 1, 2018.
9. A Pre-bid meeting/walk-through will not be held for this bid package. Walk-throughs will be held upon request. If you have further questions with regard to building walk-throughs, contact Christa Amalio at Christa.Amalio@bartonmalow.com.
10. Electronic documents are free of charge and are made available by emailing: Christa.Amalio@bartonmalow.com.

11. Bid Proposals shall be on forms furnished by CM. Bidders will be required to submit with their Bid Proposals a Bid Security by a qualified surety authorized to do business in the state where the Project is located. Bidders shall not withdraw Bid Proposals for a period of 90 Days after date for receipt of Bid Proposals.
12. The successful Bidder(s) will be required to enter into an agreement with **Troy School District** on the Agreement Form identified in the Project Manual.
13. All Bid Proposals shall be accompanied by the following two forms found in Section 00410: Familial Disclosure Form (in accordance with MCL 380.1267) and an Iran Economic Sanctions Act Form (in compliance with Michigan Public Act No. 517 of 2012. Bid Proposals that do not include these two sworn and notarized forms shall not be accepted.

Barton Malow Company
Christa Amalio
Project Manager

END OF SECTION 00100

SECTION 00200 INSTRUCTION TO BIDDERS

1. DEFINITIONS

- 1.1. Capitalized terms used in this Project Manual shall have the meanings set forth below. If a capitalized term is used herein but not defined in this Section, 00200, Part 1, it shall have the meaning set forth in the Contract Documents.
- 1.2. “**Addenda**” means the written and graphic instruments issued by the Architect and/or CM prior to the execution of the Agreement that modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.3. “**Agreement**” means the document defined in the Project Manual, including all other documents incorporated by reference in the Agreement.
- 1.4. “**An Alternate Bid**” (or “**Alternate**”) is an amount stated in the Bid Proposal to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- 1.5. “**Architect**” means the person or entity listed in section 00030 of the Project Manual and may include professional engineers if so designated.
- 1.6. “**Base Bid**” is the sum stated in the Bid Proposal for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added to or deducted from for sums stated in Alternate Bids.
- 1.7. A “**Bidder**” is a person or legal entity that submits a Bid Proposal in conformance with the Bidding Documents. After award of the Agreement, the Bidder will be referred to as Contractor. All Contractors on this project are considered prime/principal contractors.
- 1.8. “**Bid Categories**” are units of Work performed by a Contractor and its Subordinate Parties which form part of the total Project. The term “Bid Category” should not be confused with the term “**Technical Section**”. Technical Sections of the Specification establish quality and performance criteria, and the Bid Categories designate work scope and assignment.
- 1.9. “**Bidding Documents**” means the Bidding Requirements, the Contract Documents, and the Reference Documents collectively.
- 1.10. A “**Bid Package**” means a series of Bid Categories that are released for bidding in the same set of Bidding Documents.
- 1.11. “**Bidding Requirements**” include the Advertisement to Bid, Instructions to Bidders, Information Available to Bidders, and Bid forms and supplements.
- 1.12. “**Bid Proposal**” is a complete and properly signed proposal to do the Work of an individual Bid Category(ies) for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- 1.13. The “**Contract Documents**” consist of all Contracting Requirements set forth in the Project Manual, including, but not limited to, the Contract Forms (the Agreement, Performance/Payment Bonds, and Certificates), the Conditions of the Contract (General, Supplementary or Special), the General Requirements of the Project Manual, the Technical Specifications, Drawings, and all other documents incorporated into the Agreement by reference, all Addenda issued prior to and all modifications issued after execution of the Agreement.
- 1.14. “**Contractor**” means the entity to which the Owner issues a contract for performance of the Work.
- 1.15. “**Day**” means calendar day, unless otherwise defined in the particular Contract Document.
- 1.16. “**Hazard Communications Program**” means Contractor’s own hazard communications program that will govern project safety for its Work. The Hazard Communications Program must be submitted to CM by each successful Bidder before commencing Work and be no less stringent than Section 00810 - On Site Safety and Loss Control Program.

- 1.17. **“Hazardous Materials”** means asbestos; asbestos containing material; lead (including lead-based paint); PCB; molds; any other chemical, material, or substance subject to regulation as a hazardous material, hazardous substance, toxic substance, or otherwise, under applicable federal, state, or local law; and any other chemical, material, or substance that may have adverse effects on human health or the environment.
- 1.18. **“Lowest Responsive, Responsible Bidder”** means a Bidder Who’s Bid Proposal conforms in all material aspects to the terms, conditions, specifications and requirements of the solicitations and who has demonstrated the ability to properly perform the Work.
- 1.19. **“MBE/WBE/SBE”** means Minority Owned Business Enterprise/Women Owned Business Enterprise/ Small Business Enterprise as these terms are defined in the applicable ordinances and laws governing the Project.
- 1.20. **“Project Safety Program”** means the Contractor’s site safety program that will govern project safety for its Work. The Project Safety Program must be submitted to CM by each successful Bidder before commencing Work and be no less stringent than Section 00810 - On Site Safety and Loss Control Program.
- 1.21. **“Reference Documents”** are drawings that do not form a part of the Contract Documents and are included in the Bidding Documents as a courtesy only. The Bidder is not entitled to rely upon the accuracy of the Resource Drawings and they are not warranted to be correct or reliable by the Owner or CM. The Bidder is expected to have conducted its own investigation into the reliability or accuracy of any Reference Documents, and no adjustment to the Base Bid shall be made if such request arises or results from the Bidder’s failure to conduct such investigation.
- 1.22. **“Subordinate Parties”** means all of Contractor’s employees, workers, laborers, agents, consultants, suppliers or subcontractors, at any tier, who perform, assist with, or otherwise are involved in any of the Work.
- 1.23. A **“Unit Price”** is an amount stated in the Bid Proposal as a price per unit of measurement for materials or services as described in the Bidding Documents or in the proposed Contract Documents.
- 1.24. The **“Work”** includes all work and responsibilities performed or to be performed by Contractor under the Subcontract.

2. PART 2 - BIDDERS REPRESENTATIONS

- 2.1.1. The Owner reserves the right to request qualification forms or additional information from any Bidder before issuing documents, receiving Bid Proposals or awarding an Agreement. The Owner may, at their sole discretion, accept or reject Bidders as qualified. The right to waive any informalities or irregularities in qualification materials is reserved by the Owner.

2.2. BIDDER BY MAKING ITS BID REPRESENTS THAT:

- 2.2.1. Bidder has carefully read, reviewed and understands the Bidding Documents and its Bid Proposal is made in accordance therewith.
- 2.2.2. Bidder’s Bid Proposal is based upon the materials, systems, equipment, terms and conditions required by the Bidding Documents without exception.
- 2.2.3. Bidder certifies that it:
 - 2.2.3.1. has examined the Project site;
 - 2.2.3.2. has carefully reviewed the Bidding Documents
 - 2.2.3.3. has compared its examination of the Project site with the Bidding Documents;
 - 2.2.3.4. is satisfied as to the condition of the Project site, any surface or subsurface obstruction, the actual levels, and all excavating, filling in, removal and demolition, measurements and quantities involved in the Work;
 - 2.2.3.5. is familiar with weather conditions of the Project area;
 - 2.2.3.6. has taken account of all of these factors in preparing and presenting its Bid Proposal.

- 2.2.4. Bidder further certifies that it
 - 2.2.4.1. has fully acquainted itself with the character and extent of the Owner's, CM's and other Contractor 's operations in the area of the Work
 - 2.2.4.2. has taken account of coordination of operations of others in its construction plans set forth in the Bid Proposal.
- 2.2.5. No change orders will be issued to the Contractor for or on account of costs or expenses occasioned by its failure to comply with the provisions of this paragraph, or by reason of error or oversight on the part of the Contractor, or on account of interferences by the Owner's, CM's or other contractor's activities.
- 2.2.6. The Bidder, by submitting its Bid Proposal, represents that it has carefully reviewed the project schedule, along with the related requirements of the Project's Schedule and Phasing, and acknowledges that these are acceptable and have been taken into account in preparing its Bid Proposal.

3. BIDDING DOCUMENTS

3.1. COPIES

- 3.1.1. Bidders shall use complete sets of Bidding Documents in preparing Bid Proposals. Neither the Owner, CM nor the Architect shall be responsible for errors, omissions or misinterpretations resulting from the Bidder's use of partial sets of Bidding Documents.
- 3.1.2. Copies of the Bidding Documents are being made available for the purpose of obtaining Bid Proposals for the Work only. Bidders shall not use the Bidding Documents for any other purpose. Neither the Owner, CM nor the Architect warrants the completeness and/or adequacy of the Bidding Documents.

3.2. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

- 3.2.1. Bidder shall promptly notify the Barton Malow Company of all ambiguities, inconsistencies, or errors that it may discover upon examination of the Bidding Documents or upon examination of the Project site and local conditions. Bidders requesting clarification or interpretation of the Bidding Documents shall make a written request, which shall reach Barton Malow Company at least 5 days prior to the date for receipt of Bid Proposals. Direct all questions to:

Contact Name: Christa Amalio
Address: 1140 Rankin
City, State, Zip: Troy, MI, 48098
Phone: 586.295.1412
Email: Christa.Amalio@bartonmalow.com

- 3.2.2. Any interpretation, correction, or change of the Bidding Documents will be made by Addendum and/or Bid Clarification. Interpretations, corrections, or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes. Advertisement to Bid

3.3. ADDENDA and/or BID CLARIFICATIONS

- 3.3.1. Addenda and/or Bid Clarifications will be distributed to all who are known by CM to have received a complete set of Bidding Documents. Copies of Addenda and/or Bid Clarifications will be made available for inspection wherever Bidding Documents are on file for that purpose.
- 3.3.2. No Addenda or Bid Clarifications will be issued later than 3 days prior to the date for receipt of Bids except an Addendum or Bid Clarification withdrawing or postponing the request for Bid Proposals.

3.4. ALTERNATES

- 3.4.1. Each Bidder must bid on all Alternates listed in the Bid Proposal that are applicable to its Bid Category. Alternates will be fully considered in awarding the Agreement.
- 3.4.2. The Owner shall be allowed a period of 90 Days after date of receipt of the Bid Proposals to exercise the right to accept or reject any or all Alternates submitted on the Bid Proposal.
- 3.4.3. Successful Bidders shall perform all Work required for complete execution of accepted Alternates, and the Bid Proposal shall include all overhead and profit for the Work required.

3.5. VOLUNTARY ALTERNATES

- 3.5.1. All Bid Proposals must be based upon the Bidding Documents. In addition to a Base Bid Proposal, the submission of Voluntary Alternates is acceptable and encouraged. If a Voluntary Alternate is submitted for consideration, it shall be expressed on the Bid Form as an add or deduct amount from the Base Bid. The [Owner or Owner and CM] reserve the right to unilaterally accept or reject Voluntary Alternates and to determine if the Voluntary Alternates will be considered in the awarding of the Agreement.

3.6. UNIT PRICES

- 3.6.1. Each Bidder must bid on all Unit Prices listed in the Bid Proposal that are applicable to its Bid Category. Unit Prices will be fully considered in awarding the Agreement.
- 3.6.2. Successful Bidders shall perform all Work required for complete execution of accepted Unit Prices, and such Unit Prices shall include all overhead and profit for the Work required.

3.7. NO DISCRIMINATION

- 3.7.1. All Bidders shall ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, national origin, age, marital status, sexual orientation, or disability and in conformance with local, state and federal laws, regulations and ordinances.
- 3.7.2. In regard to any Agreement entered into pursuant to this Bid Package, minority and women owned business enterprises will be afforded full opportunity to submit Bid Proposals and will not be discriminated against on the grounds of race, color, religion, sex, national origin, age, marital status, sexual orientation, disability or any other status protected by applicable law.

4. BIDDING PROCEDURE

4.1. FORM AND STYLE OF BIDS

- 4.1.1. Bid Proposals shall be submitted in accordance with the Bid Proposal Form.

4.2. BID SECURITY

- 4.2.1. Bid security in the form of a bid bond issued by a qualified surety, certified check or cashier's check in the amount of five percent (5%) of the Base Bid amount will be required at the time of submission of the Bid Proposal. Bid bonds shall be duly executed by the Bidder, as principal and by a surety that is properly licensed and authorized to do business in the state in which the Work is to be performed. All sureties providing bonds for this Project must be listed in the latest version of the Department of Treasury's Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies", with the bond amount less than or equal to the underwriting limitation, and/or have an A.M. best rating of A- or better.
- 4.2.2. Bid bond shall pledge that the Bidder, with the understanding that if its Bid Proposal is accepted, will enter into the Agreement with the Troy School District for any of the Bid Category(ies) accepted from its Bid Proposal and will, if required, furnish performance and payment bonds covering the faithful performance of the Agreement and the payment of all obligations arising there under. The attorney-in-fact, who signs the surety bond must submit along with the bond, a certified and effectively dated copy of his/her power of attorney.

- 4.2.3. Bid bond form AIA Document A310 unmodified, is approved for use on this Project.
- 4.2.4. The bid security obligees shall be Troy School District and the amount of the bid security shall become their property in the event that the Bidder fails, within fifteen (15) days of notice of award or receipt of the Agreement form, to execute the Agreement, and deliver the performance and payment bonds as described in the Project Manual, section 00500. In such case, the bid security shall be forfeited to the Troy School District as liquidated damages, not as a penalty.
- 4.2.5. The Owner will have the right to retain the bid security(ies) of Bidders to whom an award is being considered until either (a) the Agreement has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bid Proposals may be withdrawn, or (c) all Bid Proposals have been rejected.
- 4.2.6. Bid security will be returned to the successful Bidders after the Agreement has been executed, and acceptance of required performance and payment bonds. The bid security of Bidders that are not under consideration for award of the Agreement will be returned to those Bidders.

4.3. SUBMISSION OF BIDS

- 4.3.1. All copies of the Bid Proposal, the bid security and any other documents required to be submitted with the Bid Proposal shall be enclosed in a sealed opaque envelope. The envelope shall be labeled as specified as noted in Section 00100.
- 4.3.2. Bid Proposals shall be deposited at the designated location prior to the time and date for receipt of Bid Proposals indicated in the Advertisement to Bid, or any extension thereof made by Addendum or Bid Clarification. Bid Proposals received after the date and time for receipt of bids may be returned unopened.

4.4. MODIFICATION OR WITHDRAWAL OF BID PROPOSAL

- 4.4.1. A Bid Proposal may not be modified, withdrawn or canceled by the Bidder after the stipulated time period and date designated for the receipt of Bid Proposals, and each Bidder so agrees in submitting its Bid.
- 4.4.2. Prior to the time and date designated for receipt of Bid Proposals, any Bid Proposal submitted may be modified or withdrawn by notice to the party receiving Bid Proposals at the place designated for their receipt. Such notice shall be in writing over the signature of the Bidder.
- 4.4.3. Withdrawn Bid Proposals may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.
- 4.4.4. Bid security as stated above shall be in an amount for the Base Bid as modified or resubmitted.

5. CONSIDERATION OF BIDS

5.1. OPENING OF BIDS

- 5.1.1. Bid Proposals received on time will be opened publicly.
- 5.1.2. Bid Proposals shall be held open and irrevocable for ninety (90)Days after the date for receipt of bids.

5.2. REJECTION OF BIDS

- 5.2.1. The Troy School District reserves the right to reject any or all Bid Proposals in accordance with all applicable laws.

5.3. ACCEPTANCE OF BID (AWARD)

- 5.3.1. It is the intent of the Troy School District to award the Agreement to the Lowest Responsive and Responsible Bidder in accordance with the Bidding Documents. The Troy School District shall have the right to waive any informality or irregularity in any Bid Proposal received and to accept Bid Proposals which, in its judgment, are in its own best interest.

- 5.3.2. The Troy School District shall have the right to accept Alternates in any order or combination and to determine the low Bidder on the basis of the sum of the Base Bid, Voluntary Alternates and Alternates accepted.
- 5.4. To the extent that these Instructions to Bidders and applicable public bidding laws, rules, regulations or ordinances conflict with each other, the provisions of the applicable bidding laws, rules, regulations or ordinances shall govern.
- 5.5. The Owner expects all supplies, materials equipment or products proposed by a Bidder to meet or exceed the Specifications set forth in the Bidding Documents. Further, it is the Owner's intent that the Bidding Documents permit competition. Accordingly, the use of any patent, proprietary name or manufacturer's name is for demonstrative purposes only and is not intended to curtail competition. Whenever any supplies, material, equipment or products requested in the Bidding Documents are specified by patent, proprietary name or by the name of the manufacturer, unless stated differently, such specification shall be considered as if followed by the words "or comparable equivalent," whether or not such words appear. The Owner, in its sole and absolute discretion, shall have the right to determine if the proposed equivalent products/brands submitted by Bidder meet the Specifications contained in the Bidding Documents and possess equivalent and/or better qualities. It shall be the Bidder's responsibility to notify the Owner in writing if any Specifications or suggested comparable equivalent products/brands require clarification by the Owner prior to the Due Date for Bid Proposals.

6. POST BID INFORMATION

6.1. POST BID INFORMATION

- 6.1.1. After the Bids are received, tabulated, and evaluated, the apparent low Bidders when so requested shall meet with CM at a post-bid meeting for the purposes of determining completeness of scope and any contract overlaps or omissions. If requested, the Bidder shall submit additional information as requested by CM. The Bidder will provide the following information at the post-bid meeting:
- 6.1.1.1. Designation of the Work to be performed by the Bidder with its own forces including manpower for the Contractor and that of its Subordinate Parties.
 - 6.1.1.2. Detailed cost breakdown of the Bidder's Bid Proposal including labor, equipment and material unit prices.
 - 6.1.1.3. A list of names of the Subordinate Parties proposed for the principal portions of the Work.
 - 6.1.1.4. The proprietary names and suppliers of principal items or systems of materials and equipment proposed for the Work.
 - 6.1.1.5. The names and backgrounds of the Bidder's key staff members including foremen and assistants. Bidder shall be requested to establish the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.
 - 6.1.1.6. Commitment to construction schedules, identification of items requiring long lead deliveries and manpower information in accordance with Section 00230 of the Project Manual.
 - 6.1.1.7. Signed safety program compliance, as described in the Contract Documents
- 6.1.2. Prior to award of the Agreement, CM will notify the Bidder if either the Owner, the Architect, or CM, after due investigation, has reasonable objection to any proposed Subordinate Party. If the Owner, Architect or CM has reasonable objection to any proposed Subordinate Party, the Bidder may, at its option: (1) withdraw its Bid Proposal; or (2) submit an acceptable substitute Subordinate Party with an adjustment in its bid amount to cover the difference in cost occasioned by such substitution. The Troy School District, may, at its discretion, accept the adjusted bid amount or it may disqualify the Bidder. In the event of either withdrawal or

disqualification under this Subparagraph, bid security will not be forfeited, notwithstanding the terms in the Instructions to Bidders.

- 6.1.3. Upon the Award of the Agreement, the Contractor shall submit to CM a complete list of all items, products, and layouts for which shop drawings, brochures, or samples are required; name of each Subordinate Party; and date of planned submission.
- 6.1.4. The Bidder will be required to establish to the satisfaction of CM, Owner and Architect, the reliability and responsibility of the Subordinate Parties proposed to furnish and perform the Work described in the Bidding Documents.

END OF SECTION 00200

SECTION 00210
DESCRIPTION OF THE WORK/SPECIAL PROVISIONS

1. GENERAL

1.1. RELATED DOCUMENTS

- 1.1.1. All Bidders shall review all of the Bidding Documents, all Bid Category Work descriptions and all Contract Documents, immediately advise CM of any adverse factors, conflicts or ambiguities that might affect the execution of Work of this Bid Package. Each Bidder is responsible to review all Bid Category descriptions and Contract Documents and coordinate the Work accordingly. Each Bidder shall incorporate into its Bid Proposal the cost of coordination of the Work with the requirements of all related Contract Documents, as shown, specified, or required.
- 1.1.2. Each Bidder shall thoroughly examine all of the Bidding Documents for the Work of all trades so as to familiarize itself both with the Work required under its Bid Category(ies) and with Work required under all other Bid Categories.
- 1.1.3. The Bidder shall perform all Work reasonably inferable from the Bidding Documents to produce the intended results. Bidders are required to visit and examine the Project site and may arrange the visit through CM.
- 1.1.4. A complete set of bid documents are available at CM's office

1.2. PROJECT DESCRIPTION

- 1.2.1. The scope of work includes a renovation of the old office area at Boulan Park Middle School. Specific Bid Category/Work Scope descriptions are found in Section 00220.

1.3. SUMMARY OF THE BID CATEGORIES/WORK SCOPES

- 1.3.1. The following is a listing of Bid Categories for this project. All work relative to the Bid Package is identified on plans and specifications as prepared by the Architect. Each Bid Category description identifies the scope of Work to be performed by the Bidder as designated by CM.

BID CATEGORIES

06000 – General Trades
230000 - Temperature Controls
230000 – Mechanical
260000 - Electrical

1.4. SPECIAL PROVISIONS

- 1.4.1. The following special provisions form a part of each Bid Category Work Scope and apply to each Contractor's Scope of Work found in Section 00220.
- 1.4.2. The Bid Category/Work Scopes should in no way be construed as being all inclusive. The Work Scope is issued as a guide to aid in the assignment of Work. If conflict regarding assignment of Work exists between the drawing notes and these descriptions, the Description of the Work and Bid Category/Work Scopes will take precedence. The Contractor shall carefully review and compare the Drawings and Specifications with the Work Scopes, and if a conflict exists, the Contractor shall immediately notify CM in writing. The Bid Category numbers and the specification section numbers are not, in all cases, identical.
- 1.4.3. Bidders are required to bid the entire Bid Category. Bids will only be accepted for individual Bid Categories. A Bidder may bid more than one Bid Category. Combined bids covering several Bid Categories will not be accepted, unless separate bid amounts are listed for each Bid Category making up the combined bid amount. Review the "Instructions to Bidders" in Section 00200 for specific Bid Proposal instructions.

- 1.4.4. Each Bidder shall review the schedule enclosed in the Bidding Documents, and be prepared to review at the post-bid meetings a schedule for the engineering, fabrication, delivery and installation of its Work. . This information will be considered in the award recommendation.
- 1.4.5. All Contractors are to coordinate all Work with the work of other trades for proper function and sequence (see Section 01360). Contractor must furnish approved copies of shop drawings, mock-ups, and technical data to other contractors designated by the CM for the purposes of coordination of this Work. Contractor must provide to all other trades all information (drawings, diagrams, templates, embedments) and other related Work necessary for the proper coordination of the Work of all trades. Each phase of the Work shall be coordinated, and the coordination plan approved by CM prior to proceeding. Contractor shall keep informed as to Work of all trades engaged in the Project, and shall execute Work in such a manner as not to delay or interfere with the progress of other trades involved. Contractor is required to schedule its Work so that no other party is delayed in execution of its work. Contractor is required to employ competent supervision on the Project throughout the entire period of construction to ensure proper coordination.
- 1.4.6. Contractor will furnish before any Work is started, evidence of ISO Certification or documented procedures for process control, including drawings, submittals, inspection/surveillance and training. In lieu of defined procedures, Contractor will follow CM's documented procedures for process control.
- 1.4.7. When it is necessary to modify or tie into existing utility services, Contractor shall notify CM in writing a minimum of 48 hours prior to the planned disruption. All disruptions shall be scheduled with CM and shall be kept to a minimum time. Tie-ins and shutdowns of existing utilities may have to be performed during off hours. Contractors are to include any required premium time in the Base Bid.
- 1.4.8. If Owner will occupy the premises or a portion of the premises during the construction, Contractor shall cooperate with CM and Owner in all construction operations to minimize conflict, and to facilitate Owner occupancy.
- 1.4.9. Information pertaining to the existing building has been obtained through photographs and investigations and is indicated on the Resource Drawings. This information is not warranted to be complete or accurate. Contractor shall verify all dimensions in the field prior to ordering materials or construction and any costs or expenses arising out of its failure to do so shall be borne solely by Contractor.
- 1.4.10. The Contractor shall examine the existing site conditions and carefully compare them to the Drawings. All measurements must be verified from actual observation at the Project site. The Contractor is responsible for all Work fitting in place in approved, satisfactory and workmanlike manner in every particular. If the Contractor encounters unexpected existing site or building conditions, it shall cease operations immediately to minimize damage and shall immediately notify CM in writing. Contractor shall bear all costs, expenses or damages arising or resulting from its failure to comply with this paragraph.
- 1.4.11. Hoisting of material or equipment above occupied areas will NOT be permitted unless the existing structure has been properly verified by a licensed professional Engineer to be able to bear the load of the material or equipment being hoisted if accidentally released. It is the responsibility of the Contractor performing such hoisting to properly and adequately reinforce existing structure.
- 1.4.12. Space for electrical and mechanical lines is limited for the Project. Therefore, it is imperative that Contractor coordinate its Work with the Work of all other trades to ensure containment of electrical and mechanical lines in space provided. Priority of space will be decided in discretion of CM, with no additional compensation, where unresolved conflict exists. If Work is not properly coordinated, Contractor shall remove and relocate Work without additional compensation.

- 1.4.13. The Contractor shall maintain all project record documents for all concealed Work to mark actual construction. The Contractor shall turn over to CM all project record documents upon completion of Work by the Contractor, in a format to be determined by CM. The Contractor shall make all project record documents available to the Owner, CM and/or the Architect for inspection and review. The Contractor's failure to maintain such documents adequately shall entitle the Owner and/or CM to withhold payment until such documents are current and up to date.
- 1.4.14. The Contractor shall submit a daily report to CM on a daily basis on the form provided to Contractor by CM.
- 1.4.15. All Contractors shall attend all meetings as required by CM.
- 1.5. OWNER EQUIPMENT COORDINATION
 - 1.5.1. The Owner Furnished and Contractor Installed (OF/CI) equipment as listed in the Individual Contractor's Work scopes found in Section 00220 shows the Contractor responsible to schedule delivery, receive the equipment and accessories F.O.B. jobsite, inspect, protect, store, handle and move into position, provide all coordination with applicable trades for rough-in requirements and final connections, marshal the appropriate trades as a composite installation crew, and assist in initial startup.
 - 1.5.2. Refer to the Drawings to determine quantities.

END OF SECTION 00210

BID CATEGORY 06 00 00 – CARPENTRY / GENERAL TRADES

The work of this bid category includes but is not limited to providing all labor, equipment, materials, scaffolding, hoisting and incidentals to complete all the **Architectural Demolition, Doors, Frames, Drywall, Acoustical Ceilings, and Specialties** in accordance with the specifications, drawings and applicable codes. All work is to be performed as shown on the plans and specified in the following technical specification sections:

<u>Specification Section</u>	<u>Description of Section</u>
<u>DIVISION 01 – GENERAL REQUIREMENTS – ALL</u>	
<u>DIVISION 02 – EXISTING CONDITIONS</u>	
024119	Selective Demolition
<u>DIVISION 04 – MASONRY</u>	
042000	Unit Masonry Assemblies
<u>DIVISION 05 - METALS</u>	
055000	Metal Fabrications
<u>DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES</u>	
061000	Rough Carpentry
<u>DIVISION 07 – THERMAL AND MOISTURE PROTECTION</u>	
078413	Firestopping
079200	Joint Sealants
<u>DIVISION 08 – DOORS AND WINDOWS</u>	
081113	Standard Steel Doors and Frames
081416	Flush Wood Doors
087100	Door Hardware
088000	Glazing
<u>DIVISION 09 - FINISHES</u>	
092900	Gypsum Wallboard Assemblies
093000	Tile
095113	Acoustical Ceilings
096815	Carpet Tile
099100	Painting
<u>DIVISION 10 – SPECIALTIES</u>	
102226	Operable Partitions

In addition to the above, this bid category includes but is not limited to the Bidding Documents, the Bidding and Contract requirements and Division 1 General Requirements of the Project Manual and various other Technical Specifications interfacing with this work. The bidder is advised to review the work descriptions of the other categories and other referenced documents so as to not misunderstand scope responsibilities.

THE SCOPE OF THIS BID CATEGORY SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

1. It is the responsibility of this Bid Category to review all drawings & drawing notes, including civil, architectural, structural, mechanical, and electrical drawings, and include items requiring work that is

generally defined as the responsibility of this Bid Category within the work description unless otherwise noted above in the scope of work.

2. This contractor will be responsible for all re-mobilization costs for all phases of work.
3. This contractor is to provide all legal disposal off-site of the debris that is a result of their work.
4. Coordinate the location and sizes of all openings with the appropriate trades.
5. Before sawcutting or making any cuts in the floor, all contractors must use ground penetrating radar, and must provide proof that it was used, to the Barton Malow site superintendent.
6. Furnish, install and maintain all shoring and bracing as required. Leave shoring in place until new building systems are in place and then remove as required. Prior to installation of shoring and bracing efforts, provide shop drawings on the proposed shoring and bracing design. A registered engineer in the State of Michigan must seal drawings.
7. This contractor shall be responsible for receiving, off loading, hoisting into/onto building including the safe and secure storage of materials related to this work.
8. This contractor shall provide joint sealants at all control joints.
9. Provide all frames, doors, hardware, and access doors as specified on the construction documents and drawings.
10. Doors are to have door hardware installed on the doors when delivered to the site.
11. Contractor will be responsible for delivery and off-loading of all frames at the site and will need to verify correct quantity of frames on shipper with the Barton Malow site superintendent.
12. The contractor is responsible to schedule a keying meeting with the school district to determine keying requirements for new cores. Contractor to coordinate with owner key/core supplier to make the system match high security system.
13. Remove tags and clean all surfaces after new doors and panels are installed.
14. Contractor will be responsible for storing all doors and frames in an acceptable manner with Barton Malow and Architect. Contractor will be responsible for removing any rust which may appear on the steel doors and frames.
15. Provide and install all insulation required for this contractor's work.
16. Provide all backing, wood blocking and shims for proper anchorage, as required, for work of this category and others, to include specialties, countertops, wood trim work, toilet accessories, and equipment.
17. Where drawings indicate an architectural item to be removed and relocated, this contractor will be responsible for all work associated with the removal and re-installation of that item.
18. Coordination with other trades, including mandatory participation in job meetings.
19. Provide and install complete gypsum wallboard, cement board, framing, layout, insulation backing, drip edges, metal edge angles, sealants, expansion joint assemblies, backer rods, through-wall flashing, control joints, including all accessories. This contractor is responsible for providing final wall construction to meet code requirements.
20. Provide and install complete cold-formed metal framing system (interior and exterior) including design and engineering, as specified.

21. Provide labor and material to perform all taping, sanding and finishing of drywall and plaster surfaces to degree ready for acceptance of final wall treatment and obtain approval for application of all finishes.
22. Provide and install all insulation, sealers, vapor barriers and soundproofing material behind work of this category.
23. Seal drywall partitions up against structural steel or deck and provide fire safing materials to close all penetrations through partitions, as specified. Sealing of drywall walls shall meet all fire-rating codes.
24. Contractor is responsible for repairing areas where nail pops, ridging, etc., occurs or openings in drywall for back boxes are too large for cover trim or plate.
25. Install all access doors for proper access to equipment and devices of other trades in acoustical ceilings, gypsum board, cementitious coatings and plaster construction. Access panels required by other trade Contractors, whether shown or not shown, will be furnished by the same and installed by this contractor.
26. Coordinate all embedded items incorporated in this work including, but not limited to, mechanical and electrical equipment for proper alignment leveling and access.
27. Provide and install complete acoustical ceiling system including all framing, layout, insulation, backing, ceiling tiles, break metal closures, anchorage and hangers. Coordinate layout of mechanical and electrical fixtures with those trades. Complete all mechanical/electrical cuts required by other trades.
28. This contractor is responsible for re-working the ceiling grid for the installation of the own work.
29. Provide and install additional support members and furring channels for hangers required to support their own work around mechanical and electrical fixtures; including the condition when it is necessary to span ducts, pipes and structural members.
30. Provide all light gauge metal framing required for interior and exterior construction and accessories including but not limited to parapets, as specified.
31. Where drawings indicate an architectural item to be removed and salvaged, this contractor will be responsible for all work associated with the removal and re-installation of that item. Refer to architectural plans.
32. All interior doors are to be delivered with hardware installed prior to delivery to the jobsite.
33. Fabrication and installation of all structural steel framing, columns, beams, girts, sag rods, joists and girders, metal decking, bracing, connections, steel tube framing, roof ladders, staircases, pipe railings, temporary bracing and erection materials (as required), miscellaneous support steel and miscellaneous iron, as specified. Perform all work in accordance with all contract document notes, sections, details and column key plans. This contractor is responsible to review the extent of the work under this category and include any necessary, relocation and/or replacement of existing items to complete work. Field fabrication to meet existing conditions may be required. Refer to demo notes for further clarification.
34. Furnish all loose steel lintels, shelf angles, anchor bolts, masonry anchors, support angle, set irons, bearing plates, leveling plates, sleeves, and relief angles to the appropriate trades for installation. Refer to demo notes.
35. When the lintel schedule allows option of using either precast or steel lintels, the Masonry contractor shall furnish and install precast lintels.
36. Fabricate, deliver, and unload, as directed, all miscellaneous iron and embedment to the appropriate categories.
37. Weld all miscellaneous steel and embedment required by other trades.

38. Furnish and install angle framing and decking closures for all roof penetrations including ductwork, exhaust fans, roof hatches, shown to be removed by the demo contractor.
39. Provide all closure angles and steel angles with anchors as required for masonry and concrete work. Turnover to appropriate contractor.
40. Include cleaning and touch up painting of bolted connections, welded connections, and abraded areas. After erection, field coat all abrasions, nuts and bolts, washers and surfaces left unpainted.
41. Shop painting and field touch-up painting for structural steel members.
42. Furnish loose lintels for all wall penetrations, which require structural support. This contractor will be responsible to examine all drawings (Structural, Architectural, Mechanical and Electrical) for openings requiring support steel or items requiring structural support. Layout elevations of lintels to be supplied to the installation contractor in the field. Coordinate the layout elevations with Mechanical and Masonry Contractors.
43. Reinforce existing structural steel as shown or required for installation of new work. It is this contractor's responsibility to review all structural, architectural and mechanical drawings. Remove, patch and/or replace any ceiling systems as required to perform work of this category.
44. Work shall be performed in accordance with the General Structural Steel notes listed and details shown.
45. Verify all elevations, grades, etc., prior to installation, necessary to complete this scope of work and provide Barton Malow Company a copy of the report.
46. Furnish and install miscellaneous structural steel for mechanical support unless indicated by other trades as shown in the Contract Documents.
47. Reference Structural Detail sheets for joist bearing at firewall detail, all plates are to be supplied by this bid category. Plates scheduled to be install in existing wall will be installed by the masonry contractor. All plates scheduled to be installed at new steel are to be installed by the steel contractor.
48. Supply and install all handrails and guardrails shown on the drawings, include the civil drawings
49. Perform all trimming and adjusting of demolition work for installation of new construction. Coordinate limits of wall demolition with architectural drawings and all critical trade contractors.
50. Deliver maintenance stock to Owner, as specified.
51. Install expansion joints as noted for your scope of work.
52. Provide and install paint for all interior surfaces, exterior surfaces, exterior lintels, concrete floors, mechanical lines fire protection lines, and duct work, as required, including epoxy painting work. Gas lines shall be painted yellow, per code.
53. This contractor is responsible to investigate the completed surfaces of all walls, ceilings, soffits, etc., of drywall, masonry and other construction to determine and approve finishes established by those trades to which all work of this category applies. Prepare all surfaces to receive paint as specified, including all minor repairs.
54. Contractor is responsible for removing or covering all cover plates, trim pieces, etc., necessary for the performance of their work if directed by the appropriate trade and replacing same at the conclusion of this Contractor's work.
55. Provide finishing for all wood surfaces requiring on-site finishing

56. Contractor is responsible for selective touch-up of finish work per the Architect and Construction Manager.
57. Contractor is responsible for all touch-up of door frames after installation of doors and glass.
58. The contractor is responsible to protect all floors from overspray to the approval of the Construction Manager.
59. This contractor is responsible to paint all new, exterior, exposed piping, including the new gas line on the roof.
60. Provide all necessary information, color samples and finish samples, and cooperate with the Project Architect in the development of the colors and finishes.
61. Contractor is responsible for all caulking of dissimilar materials
62. Furnish and install all interior and exterior concrete masonry units, above and below grade, bond beams, face brick, pre-cast lintels, glazed concrete masonry units, glass unit masonry, joint materials, dampproofing, waterproofing, insulation, compressible fillers, backer rod, anchors, ties, bearing plates, reinforcing, through-wall flashing and drip edges, building paper, weep holes, premolded expansion strip, exterior and interior caulking and sealant, anchor bolts and other accessories shown or required for a complete product. Perform work in accordance with related notes/details listed on structural, architectural drawings and masonry wall key plans.
63. This contractor shall set the hollow metal frames supplied by the carpentry contractor. Provide labor and materials to grout all hollow metal frames as specified or required. Check frames for plumb and square during the frame installation and before doors are to be installed. Correct any deficiencies in plumbness, levelness and squareness.
64. This contractor is responsible for all masonry cleaning and sealing. Provide all cleaning and scraping of masonry walls to receive paint. Following the application of block filler, the bidder shall remobilize and correct aesthetic deficiencies as noted by Owner, Architect, and/or Construction Manager.
65. Coordinate the location and sizes of all openings with the appropriate trades. Provide appropriate opening in walls for all mechanical equipment - HVAC, architectural louvers, etc. set in masonry construction. Coordinate closely with mechanical trades for opening sizes and locations
66. This contractor is responsible to review the code plan. Seal masonry partitions up against structural steel or deck and provide safing insulation or grouting to close all penetrations through partitions, as specified. Sealing of masonry walls shall meet all fire rating codes
67. Unload, handle, and install all miscellaneous iron items furnished by others such as steel lintels, anchors, shelf angles and relieving angles supplied by others.
68. Provide and install all grouting for the bearing plates, sills and other items, as required.
69. Provide and install foamed-in-place insulation as required. Insulation is to be installed prior to painting of walls.
70. Grout all masonry units below grade.
71. Contractor to touch in door frames, pipe chases, unit ventilators as noted or otherwise required to complete this category.
72. Provide CMU infill where existing windows, doors, louvers, etc. have been removed. Touch in brick to match existing.
73. Install sleeves furnished by other trades.

74. Furnish and install sealant within exterior and interior masonry wall construction and when masonry abuts an existing dissimilar surface.
75. Cutting of masonry walls for installation of electrical/plumbing/fire extinguisher cabinets/technology boxes provided by others are this contractor's responsibility within masonry walls. The electrical and carpentry contractors will share the responsibility and any cost incurred for adjustment to ensure a square/plumb quality finished project.
- 76. Only wet cutting will be permitted on silica containing material.**
77. Provide and install all concrete reinforcements, curing compounds, control joints, expansion joints, joint sealants, caulking, fillers, and related accessories, as specified.
78. Furnish and install all cast-in-place concrete for the entire plans and specifications, including but not limited to, foundations, perimeter walls, floors, piers, slab-on-grade, thickened slabs, grade beams, stairs, ramps, steps, recessed floor mats, and exterior stoops. Furnish and install rigid insulation on compacted granular fill as required. All work is to be performed in accordance with General Foundation and Concrete Noted listed and related notes/details on structural and architectural drawings.
79. Remove spoils when unsuitable for re-use. Import engineered fill when necessary.
80. Provide and install all concrete reinforcements, dowels, woven wire fabric, control joints, expansion joints, joint sealants, caulking, fillers, and related accessories, as required. Consolidate and remove all left over re-steel at the end of the job.
81. Supply and install all required surface treatments, sealers, and curing compounds for all concrete floors, including all preparation and cleaning required.
82. Include shoring and underpinning of existing footings.
83. Furnish and install operable partitions as noted on the drawings and specifications.
84. Furnish and install all tile and carpet tile as noted on the bid documents.
85. Furnish and install metal fabrications as noted on the bid documents.
86. Furnish and install wood doors, steel frames and hardware noted on bid documents
87. Furnish and install all glazing noted on plans and specs.
88. All extras must be submitted within 60 days, or cost will be voided.
89. Include cost for dumpsters in base bid price.

ALLOWANCES:

1. Contractor to include an allowance of \$5,000 as part of base bid pricing for use as directed by CM for masonry patching not indicated on bid drawings. Any unused portion will be returned to the Owner via a deduct Change Order.

EXCLUDED FROM THIS CONTRACTOR'S WORK is:

2. None

SPECIAL CONSIDERATIONS:

1. All demolition work is assigned to the individual contractors that are responsible for the particular material or work in question. The contractor is to perform all demolition of the materials assigned in the specification sections listed in their own Description of Work, unless otherwise noted.
2. No deliveries will be accepted in or out of the construction site during the hours of 7:30am – 8:30am and 3:00pm – 4:00pm
3. Provide adequate supervision of your sub-contractors and your field personnel. This includes a field superintendent responsible for all work with the ability to make decisions.
4. Every contractor performing Demolition of any type must provide a person who is trained and certified in lead renovation. This “certified lead renovator” must be on site at all when demolition work is occurring. The contractor must also meet all new OSHA, MOSHA, and DEQ requirements regarding lead. Contractors will be required to supply their firm’s name and copy of the certifications of the “Certified Lead Renovator” card as well as a copy of their firm’s certifications as a startup document. All other photo documentation requirements as required under the regulation will be required to be provided during the “closeout” phase of construction (as well as a copy maintained by the contractors for 3 years after date of substantial completion). The contractors will be required to post a notification packet in the buildings notifying all occupants of the upcoming renovations. Please visit the EPA’s website www.EPA.gov/lead for more information.
5. Prevailing Wage Rates apply to all bid categories.

END OF BID CATEGORY 06 00 00 – CARPENTRY / GENERAL TRADES

BID CATEGORY 23 00 00 – MECHANICAL

The work of this bid category includes but is not limited to providing all labor, equipment, materials, scaffolding, hoisting and incidentals to complete all the **Mechanical** in accordance with the specifications, drawings and applicable codes. All work is to be performed as shown on the plans and specified in the following technical specification sections:

<u>Specification Section</u>	<u>Description of Section</u>
<u>DIVISION 01 – GENERAL REQUIREMENTS-ALL</u>	

DIVISION 02 – EXISTING CONDITIONS

024120	Selective Demolition
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DIVISION 05 - METALS

055000	Metal Fabrications
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DIVISION 07 – THERMAL AND MOISTURE PROTECTION

078413	Firestopping
079200	Joint Sealants

DIVISION 20 – COMMON MECHANICAL REQUIREMENTS - ALL**DIVISION 23 – HEATING VENTILATING AND AIR CONDITIONING – ALL**

In addition to the above, this bid category includes but is not limited to the Bidding Documents, the Bidding and Contract requirements and Division 1 General Requirements of the Project Manual and various other Technical Specifications interfacing with this work. The bidder is advised to review the work descriptions of the other categories and other referenced documents so as to not misunderstand scope responsibilities.

THE SCOPE OF THIS BID CATEGORY SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

1. It is the responsibility of this Bid Category to review *all* drawings & drawing notes, including civil, architectural, structural, mechanical, and electrical drawings, and include items requiring work that is generally defined as the responsibility of this Bid Category within the work description unless otherwise noted above in the scope of work.
2. Each category shall be responsible for items of work as described in Section 00210 Descriptions of Work/Special Provisions/Requirements.
3. This contractor to review the scope of work for bid category 16000, division 16 Electrical, for work related to this bid category. If there is any confusion to the scope of work for each related bid category, this contractor shall submit a pre-bid RFI, or clarify on the proposal form the point of confusion, and clarify what work has not been included in the bid. This contractor will coordinate with the work of bid category 16000 contractor in the areas of wiring mechanical equipment, valve alarm flow switches, duct detectors, control wiring for mechanical equipment, etc. and should thoroughly familiarize themselves with the electrical requirements relative to the bid category 16000 work.
4. Review the electrical specifications and provide any electrical equipment required for mechanical equipment which is required for a complete installation, but not shown. The electrical contractor will be responsible for a single point connection to mechanical equipment.
5. This contractor will be responsible for all re-mobilization costs for all phases of work.

6. This contractor shall be responsible for receiving, off-loading, hoisting into/onto building including the safe and secure storage of materials related to this work.
7. This contractor is to provide all legal disposal off-site of the debris that is a result of their work.
8. Coordinate the location and sizes of all openings with the appropriate trades.
9. Furnish and install pipe identification markers, tags, schedules, nameplates to identify ducts, pipes and mechanical equipment.
10. Before sawcutting or making any cuts in the floor, all contractors must use ground penetrating radar, and must provide proof that it was used, to the Barton Malow site superintendent.
11. Furnish, install and maintain all shoring and bracing as required. Leave shoring in place until new building systems are in place and then remove as required. Prior to installation of shoring and bracing efforts, provide shop drawings on the proposed shoring and bracing design. A registered engineer in the State of Michigan must seal drawings.
12. Perform all trimming and adjusting of demolition work for installation of new construction. Coordinate limits of wall demolition with architectural drawings and all critical trade contractors.
13. In all locations where this contractor sawcuts the floor, this same contractor is also responsible for pouring back concrete. This contractor must coordinate with flooring contractor as to provide proper floor finish and height.
14. For the duration of your work, all building systems must remain operational and there shall be no interruption to the owner's systems while they are occupying the building. Coordinate and schedule shut-downs as required for this contractor's work during off-hours.
15. Include shutting off main water line, heating systems, and draining down systems complete in base bid. Perform this work on weekends not to interfere with owner's operations or other trade activities. DO NOT assume that any branch shutoffs in base bid are existing.
16. Contractor is responsible for removal of all spoils resulting from their work from the site.
17. The first floor sub-grade will be placed and compacted prior to the start of the underground work designated in this package. This contractor is responsible to excavate, install work and replace all fill to the specified density material within the building interior to the same condition it was prior to starting excavation for underground. Remove spoils from site.
18. Provide piping and connections to site utilities, as shown. This contractor is responsible to terminate connections 5 feet outside of building. Contractor is responsible for all excavation, backfill and compaction for their work. All backfill must be Class II granular fill. Coordinate connections with Category 320000.
19. This contractor is to verify and stake locations of all underground utilities before beginning their work.
20. Coordinate with Architect/Engineer before penetrating any structural members.
21. Furnish and install all new louvers including architectural louvers, as specified. Outside air louvers are to be electrostatic painted by this contractor. Coordinate with all other trades for the location and size of all openings for louvers.
22. This contractor is responsible for covering and securing, water-tight, all existing curbs on roofs that are to be removed and any of their own new through-floor or roof penetrations.

23. Supply and install all temperature controls including all related wiring and equipment, as specified.
24. In rooms where existing ceiling is not scheduled to be removed and replaced, this contractor will be responsible for removal and replacement of ceiling tile as required to perform their work.
25. Provide and locate all access doors to architectural trades for setting as required for access to mechanical equipment.
26. Provide and locate all roof curbs or penetrations for mechanical equipment. Contractor will level all curbs, as specified. If roof curbs are not onsite at the time the roof is being installed, this contractor will be responsible for any additional charges incurred by the roofing contractor to flash in said units.
27. Contractor shall include all piping/pumps necessary to facilitate condensation removal at the cooling units. When not shown, contractor is responsible to route to nearest drain source.
28. This contractor will be responsible for cutting and patching of roof membrane as required to set or install new mechanical equipment. This work is to be performed by a manufacturer approved roofing contractor. Roof patching must not void any new or existing roof warranties.
29. Ceiling removal & replacement not shown but is required for work identified by this category will be the responsibility of this contractor.
30. This contractor is responsible for all sheet metal work, piping, and mechanical equipment required for the complete heating and cooling systems including but not limited to: AHU's, chiller, EF's, grilles, diffusers, pumps, valves, and unit heaters.
31. Furnish and install all mechanical, plumbing, sanitary, water, temperature controls, fixtures, heating/cooling, mechanical insulation, HVAC, etc systems and all mechanical demolition/repair/replacement/rough-in as detailed or specified, include legal disposal of equipment and piping removed by this contractor.
32. Pressure test all underground pipes as required in the specifications and plumbing codes.
33. This contractor is responsible for all new work on existing systems; removal and relocation of existing fixtures, equipment, and mechanical lines; and to tie-in all new mechanical work with the existing systems, as shown and required. This contractor is responsible for protection of all existing mechanical equipment and systems to remain.
34. This contractor shall include all demolition required to facilitate new and/or existing mechanical/ plumbing work. Include patching to match adjacent surfaces. The following are examples that could, but shall not be considered a complete scope of demolition, patching, matching and/or replacement of existing finishes, however required to facilitate new or existing mechanical/plumbing work:
 - a. Concrete Removal and Replacement
 - b. Masonry Removal and Replacement
 - c. Drywall Removal and Replacement
 - d. Ceiling Removal and Replacement
 - e. Floor Removal and Replacement
 - f. Floor Finishes, i.e.; Carpet, VCT, Terrazzo
35. This contractor will be required to direct all related trades as to locations and sizes of penetrations to surfaces. If proper coordination is not provided it will be the responsibility of this contractor to cut, patch and revise all holes and penetrations for the installation of all pipe and ductwork. All penetrations through

walls, floors, and ceilings will be fire and smoke stopped so as to comply with the Office of Fire Safety requirements.

36. This contractor is responsible for cutting any required openings in the metal deck as required for their. Openings shall be kept protected and water-tight.
37. Prior to final acceptance this contractor shall clean all floor drains and associated piping and remove all dirt and debris. Test with running water for good draining after cleaning.
38. Provide protection of equipment. Costs incurred due to damage of equipment because of lack of adequate protection will be the responsibility of this contractor. This includes temporarily capping all floor drains and pipes so as to prevent concrete and other construction debris from entering the plumbing.
39. Coordinate layout and installation of all mechanical piping and ductwork with other trades. This contractor is responsible for the proper location and sizes of all mechanical openings by other trades. Any corrective work necessary to wall or floor openings will be the responsibility of this contractor.
40. This contractor shall field verify all dimensions and furnish dimensional layout drawings.
41. This contractor shall include the new louvers, wall sleeves, wall boxes, splitter plates, seals, sills, blocking, backing, and shims required to complete the unit ventilator installations. Modify existing piping and or wall box as shown. Blank off unused section of louver.
42. This contractor shall be responsible for layout engineering, and ongoing clean up as it pertains to this work, coordinate layout with other contractors.
43. This contractor is to furnish duct-work coordination drawings to all related trades prior to their work commencing.
44. Provide all concrete equipment pads, platforms and bases required to include extending existing for mechanical equipment and systems.
45. This contractor is responsible for the insulation of all mechanical and plumbing systems (pipes, fittings, duct, etc) as required and specified.
46. Provide roof drains as required. Coordinate installation with category 075000.
47. Provide rough-ins and final connections for all food service equipment, as required on the mechanical and food service drawings. Coordinate location of rough-ins with category 114000. Plumbing exposed in the kitchen is to be stainless steel or chrome plated. Install all accessories supplied by category 114000 at the connections, including but not limited to: unions, gas hoses, pressure regulators, vacuum breakers, water filters, faucets, waste valves, swirl sprays, solenoid valves, and garbage disposals.
48. All exposed pipes must have a sheet metal enclosure that are preassembled and be pre-painted by Mechanical contractor. Field touch up paint by Mechanical contractor. Color to be selected by Architect.
49. This contractor is responsible for all caulking, gaskets, and sealing of mechanical and plumbing systems to provide air, water, and weather tight connections including but not limited to sealing of wall and floor penetrations and plumbing fixtures.
50. Furnish and install all supports for this contractor's equipment.
51. This contractor is to verify and stake locations of all underground utilities before beginning their work.
52. Receive duct smoke detectors from the Electrical contractor and install. Coordinate location with the Electrical contractor.

53. This contractor will be responsible for all mechanical demolition as shown on drawings. This is to include all pipe, insulation, sheet-metal, mechanical units, etc.
54. Each contractor performing demolition shall be responsible for protecting new and existing construction from damage due to their own work. If any adjacent surfaces are damaged, it will be the sole responsibility of the contractor at fault to completely repair and replace all damaged construction to the satisfaction of the Owner, Construction Manager, and Architect.
55. This contractor is responsible for the cutting and patching of all existing materials for the installation of all mechanical work. All penetrations through walls and ceilings will be fire and smoke stopped where as to comply with the State Fire Safety Requirements. Provide and install all firestopping materials. Contractor shall restore all surfaces to match existing conditions. This shall include all drywall, masonry, concrete, acoustical ceiling, steel, roofing, windows, insulated wall panels, plaster, flooring (all types), painting, and caulking work.
56. Provide complete testing, adjusting, and balancing of the mechanical systems, as specified. Provide additional testing at 90 days after completing the TAB, and during near-peak summer and winter conditions.
57. The contractor's field superintendent shall be present during testing and field reviews conducted by the various inspection agencies, including the commissioning agent and all Fire Marshall inspections.
58. Chlorinating and testing of this contractor's work, provide test reports prior to building occupancy.
59. Where drawings indicate that an existing piece of kitchen equipment is to be removed and reinstalled; this contractor shall disconnect and reconnect all mechanical utilities including but not limited to plumbing, HVAC, control wiring, etc.
60. The first floor sub-grade will be placed and compacted prior to the start of the underground work designated in this package. This contractor is responsible to excavate, install work and replace all fill to the specified density material within the building interior to the same condition it was prior to starting excavation for underground.
61. Provide shoring of any piping and/or ductwork.
62. This contractor is responsible for covering and securing, water-tight, all existing curbs on roofs that are to be removed and any of their own new through-floor or roof penetrations.
63. In rooms where existing ceiling is not scheduled to be removed and replaced, this contractor will be responsible for removal and replacement of ceiling tile as required to perform their work, as well as any cost associated with replacing with new tiles.
64. Secure, pay for, and provide all testing, inspections as required for beneficial occupancy by the Owner.
65. Provide all wiring and hookups to connect all parts, controls, fire safety devices and associated equipment necessary for complete and operational systems. Provide coordination with electrical contractor as required to interface with work described within this package.
66. Any fire protection/fire alarm/other utilities, remove and replace in order to perform own work. Have appropriate contractor reinstall lines.
67. Provide all supports required to attach to structure systems including rail supports and bracing.
68. Furnish to category 030000 or 040000 all inserts to be installed in concrete along with approved shop drawings for locations.

69. This contractor will be responsible for conformance to all national and local codes, regulations, testing and inspection requirements for beneficial occupancy by Owner.
70. Should there be discrepancies between what is shown or specified and what is required by State or local authorities, this contractor shall bring such discrepancies to the Architect's attention through Barton Malow in written form prior to bid.
71. Provide daily clean-up, according to Barton Malow standards, including daily removal of all materials and debris related to this category. If daily clean-up is not performed, the Construction Manager will provide his labor to complete the clean-up and the appropriate contractor will be back-charged.
72. Include final cleaning of all fixtures and equipment furnished by this bid category.
73. Coordination with other trades, including mandatory participation in job meetings.
74. Furnish and install fall protection tie off points or warning lines for employees and subcontractors of this bid category working above 6 foot or on roofs.
75. Fully coordinate and obtain all required approvals from governing authorities and pay for all fees and permits required as part of this contractor's work. This contractor will be responsible for scheduling all health department inspections necessary under this scope of work with Macomb County. Schedule and demonstrate to the state mechanical, plumbing and electrical inspectors that the kitchen equipment is operating properly. This contractor will have their site foreman accompany the inspectors during all scheduled inspections.
76. This contractor is solely responsible for the proper and complete operation of the equipment to be furnished and installed. Include all components necessary for proper installation if components are not shown, but required.
77. Provide all required escutcheons, pedestals, etc. for finish trim for this scope of work, as specified.
78. Supply all materials according to the construction schedule. Any necessary storage of material due to the phased nature of the construction is this contractor's responsibility.
79. Include all temporary heat in base bid based upon the schedule.
80. Correct findings from balancing reports within three days of receipt of reports. This contractor is responsible for repeat visits by the balancing contractor resulting from incomplete systems. Provide all necessary sheaves and belts to accomplish design for all new equipment.
81. Furnish and install new stainless steel wall caps as shown.
82. This contractor is to provide final hook-up of Owner supplied equipment.
83. Include all steel framing required to accommodate new mechanical units.
84. All extras must be submitted within 60 days, or cost will be voided.

EXCLUDED FROM THIS CONTRACTOR'S WORK IS:

1. None

SPECIAL CONSIDERATIONS:

1. All demolition work is assigned to the individual contractors that are responsible for the particular material or work in question. The contractor is to perform all demolition of the materials assigned in the specification sections listed in their own Description of Work, unless otherwise noted.
2. No deliveries will be accepted in or out of the construction site during the hours of 7:00pm – 7:00am.
3. Provide adequate supervision of your sub-contractors and your field personnel. This includes a field superintendent responsible for all work with the ability to make decisions.
4. All work under this scope shall comply with proper trade jurisdictions, even if it is necessary to assemble composite crews or subcontract to appropriate trades.
5. Every contractor performing Demolition of any type must provide a person who is trained and certified in lead renovation. This “certified lead renovator” must be on site at all when demolition work is occurring. The contractor must also meet all new OSHA, MOSHA, and DEQ requirements regarding lead. Contractors will be required to supply their firm’s name and copy of the certifications of the “Certified Lead Renovator” card as well as a copy of their firm’s certifications as a startup document. All other photo documentation requirements as required under the regulation will be required to be provided during the “closeout” phase of construction (as well as a copy maintained by the contractors for 3 years after date of substantial completion). The contractors will be required to post a notification packet in the buildings notifying all occupants of the upcoming renovations. Please visit the EPA’s website www.EPA.gov/lead for more information.
6. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings. All dimensions must be verified in the field.
7. Provide photo identification badges to be worn by Contractor’s field personnel at all times. This contractor will be responsible for all re-mobilization costs for all phases of work.
8. Contractor is responsible to furnish all Barton Malow Co. start-up documents electronically and sworn affidavits within two (2) weeks of contract award. This includes signed contract, bonds, certificate of insurance, shop drawings and submittals
9. **This contractor is responsible to create a safety binder which will include the following information: site specific safety program, signed safety agreement (01600), MSDS sheets, Asbestos Training Certificates, CPR/first aid certificates, Lift certifications, Lead Renovators Certificates, Storm Water Certificates, Equipment Maintenance Logs, Equipment Training Letters, Roof Work Permits, & Letter indicating competent person. This information will be organized and clearly marked with the contractors name, address and division on the exterior of a 3 ring binder for each building you will be working at, include this safety binder as an item on your schedule of values with a value of \$1,000.00.**
10. Bidder shall complete the Bid form in its entirety, special attention is directed to the Allowances, Alternates and Unit Prices Section of the Bid Form.
11. This contractor is responsible to include all overtime and or shift time to avoid interfering with the owner operation and to meet the project schedule.

END OF BID CATEGORY 23 00 00 – MECHANICAL

BID CATEGORY 230900 – INSTRUMENTATION AND CONTROL FOR HVAC

The work of this bid category includes, but is not limited to providing all labor, equipment, materials, scaffolding, hoisting and incidentals to complete all **instrumentation and control for HVAC work** in accordance with the specifications, drawings and applicable codes. All work is to be performed as shown on the plans and specified in the following technical specification sections:

DIVISION 1 - GENERAL REQUIREMENTS - All**DIVISION 20 – COMMON MECHANICAL REQUIREMENTS – ALL (AS IT RELATES)****DIVISION 22 – PLUMBING – ALL (AS IT RELATES)****DIVISION 23 – HEATING VENTILATING AND AIR CONDITIONING – ALL (AS IT RELATES) and
230933 – Temperature Controls****DIVISION 26 – ELECTRICAL – ALL (AS IT RELATES)**

In addition to the above, this bid category includes, but is not limited to the Bidding Documents, Bidding and Contract Requirements, Division 1 - General Requirements of the Project Manual, and various other Technical Specifications interfacing with this work. The bidder is advised to review the work descriptions of the other categories and other referenced documents, so as to not misunderstand scope responsibilities.

THE SCOPE OF THIS BID CATEGORY SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

1. Provide all new instrumentation and control equipment and systems indicated on the drawings. This work shall be all control equipment as required for the mechanical systems, including but not limited to: plumbing, fire protection, domestic water piping, hydronic systems, chiller systems, and HVAC work indicated, and components required for a complete system.
2. Obtain approvals and provide all required permits, fee applications, etc., required for execution of work. Pay for inspection fees for same. Coordinate the inspection and testing of the systems with state and local governing agencies. Pay for all fee and testing charges in conjunction with the testing of each system.
3. Provide all cost to complete the interlocking of the smoke duct detectors as required. Provide and install all equipment required to complete this work.
4. Monitor and coordinate all dampers and VFDs with BMS and Fire Alarm System.
5. Furnish to the contractor constructing the walls, floors and ceilings, all access panels required to service the mechanical systems that are not shown on the drawings.
6. Perform all check, test, start-up and commissioning per contract documents.
7. Provide complete owner training on controls system. Provide evidence of training upon completion of session(s).
8. Coordinate graphics/front ends with Owner and Designer of record

9. Provide fire stopping as necessary to seal wall, floor and ceiling penetrations created for work under this bid category. Note: Fire stopping must adhere to all building codes and State Fire Marshal requirements.
10. Review the electrical specification and provide any electrical equipment required for control equipment that is required for a complete installation, but not shown.
11. Provide all troubleshooting and diagnosis of malfunctioning mechanical systems, including control work.
12. Rigging and hoisting for work of this Bid Category.
13. Caulk all products installed by this Contractor, where required for work of this Bid Category.
14. Receive, unload, store and protect all control equipment.
15. Protect the work of this contract, as required.
16. Provide final cleaning of all equipment installed by this bid category prior to Owner occupancy.
17. Coordinate overhead work with all trades.
18. This contractor will be responsible to remove and reinstall any ceiling tile necessary to complete all work under this bid category. This contractor will be responsible to replace any ceiling tiles that are damaged during this process.
19. Provide daily cleanup according to Barton Malow standards, including daily removal of all materials and debris related to this category. You must provide your own dumpster.
20. Each contractor, while on site shall provide to Barton Malow one (1) person for each five tradesmen (or portion thereof) employed at the site, one day a week for up to four (4) hours , for the exclusive purpose of performing overall project weekly cleanup. Please refer to section 1550 page two in regards to direct cleanup, weekly cleanup and final cleanup.
21. Submit all shop drawings and product submittals on materials within two (2) weeks of letter of intent. No partial submittals will be accepted. Contractor will be held responsible for damages due to late shop drawings and product submittals.
22. Review all specifications and project drawings, drawing notes, schedules, and schedule notes including architectural, mechanical, and electrical for areas requiring work described by this bid category and coordinate work with the respective contractors, include all costs in base bid.
23. Protect existing equipment and items to remain during construction including existing ceilings, walls, and flooring. Contractors are to protect all existing floors and existing owners materials remaining on site. Include protection of existing buildings and finishes within the pathway through the building from the construction area to the exterior. Correction of damage due to lack of adequate protection will be the responsibility of this contractor. In addition, all work is to be performed through existing ceilings, be it lay in, spline, drywall, or plaster, etc. Contractors are to include the cost of repairing and patching, removal and reinstallation and replacement of ceilings as required for work of their bid category.
24. Use of the elevator is not permitted. Include all rigging and hoisting to deliver and remove materials to / from the second floor.
25. Contractor shall have full time supervision including while their subcontractors are on-site.

26. Include all manpower, overtime, and composite crews in base bid to complete work per schedule. See section 00230.
27. The temperature control contractor is responsible for working with the district's commissioning agent to commission all new and existing valves and dampers throughout Barnard, Bemis, Wass and Administration Building.
28. All layout required for work of this bid category.
29. Contractor must be certified by one of the specified temperature controls manufacturers as listed in the specifications.
30. Demolition of all temperature controls items and system as shown, where mechanical equipment is demoed, and/or required for work of this bid category. The demolition work shall include all supporting items and hangers, unless shown to remain. Coordinate demolition activities with the Owner in order to maintain existing mechanical systems. Provide and install any temporary measures to keep the existing mechanical system operational for temporary heat. Coordinate with the mechanical contractor.
31. Provide firestopping at all new/re-used floor and wall penetrations. Include weather tight patching at exterior penetrations.
32. Furnish and install complete temperature controls system including but not limited to all related wiring, conduit, transformers, relays, monitoring devices, and equipment as shown, specified, or required for a complete installation.
33. Provide all sensor wells and control valves to the Mechanical Contractor for installation. All controls piping and wiring and secondary power wiring for control valves shall be completed by this Controls Contractor. Provide cutsheets on valves to the mechanical and testing & balancing contractor after submittal approval.
34. Obtain a permit from Barton Malow prior to any hot work. Provide all safety measures. Protect all existing construction during any and all hot work done by this bid category.
35. Label temperature control points on stats, junction boxes, and equipment as specified and/or per Troy Schools standards. Provide a detailed printed description. Label ceiling grid where VAV box controls are located.
36. Contractor is responsible for storage of all materials. Deliver materials to the site as needed. Storage in the building will be limited.
37. Coordinate controls with new mechanical equipment for a fully operational system.
38. Contractor responsible for coordinating all work with Mechanical Contractor.
39. Contractor responsible for obtaining copies of all approved mechanical equipment submittals from Mechanical Contractor.
40. Contractor is responsible to coordinate the installation of controls on vav boxes with the mechanical manufacturer. Coordinate with the Mechanical contractor.
41. Contractor is to setup remote access to the frontend with Troy Schools.
42. Contractor shall maintain a work deficiency list while onsite. Update weekly and submit to the mechanical contractor and copy the construction manager.
43. Contractor shall include time in the bid to work with the test and balance contractor.
44. Contractor shall verify in writing that the controls system is fully operational and operating correctly prior to test & balancing, commissioning and punchlist.
45. Contractor shall include time in the bid for commissioning.
46. Provide and install all operating tools for the control graphics system.
47. Cutting, patching, and coring for installation of new work shown or required for work of this bid category.

48. All wiring should be in a minimum of ½" conduit including temperature controls unless otherwise noted on the drawings.
 49. All adjusting and cleaning shall be performed as specified per each spec section.
 50. Items shown to be turned over to Owner must be accompanied by a transmittal and copied with signature of receipt to BMC.
 51. Provide as-built drawings, manufacturer's warranties, and O/M manuals. Provide in-service training to Owner's staff on all systems and equipment as required. Training may not start until o/m manuals are approved by the architect and as-builts have been received. Warranties on equipment or systems will not start until owners training has been completed. Contractor is to provide extended warranties from the manufacture as necessary for compliance of the above mentioned.
 52. Punch list will not start until all work has been completed.
 53. All start-up and training is to be performed by a factory certified representative or manufacturer (as required per specification section) for that specific piece of equipment.
 54. All field quality control and equipment commissioning shall be conducted per each specification section. A written itemized report shall be submitted to the construction manager verifying each individual item has been completed with all back-up field and test reports.
 55. In addition to the contractors one year warranty on parts and labor, submit all extended warranties called out in the specifications.
 56. When work covered by a warranty with a specific time period has failed and has been corrected by Contractor, the warranty shall be reinstated for a time period equal to the original warranty.
 57. Provide extra materials as specified.
 58. Contractors may not drop retainage to 5% until all warranties, o/m manuals, testing, commissioning, training, extra materials, and punchlist items have been completed, turned over, accepted, and documented. Contractors must also have up to date partial and final waivers from subcontractors and suppliers including a G707 form signed and sealed by the surety.
 59. To bill out the remainder of retainage (from 5% to 0%), the contractor must set up a meeting with BMC to go over and/or collect the remaining closeout items for final payment (including all final waivers) as specified in section 01700 of this project manual.
60. SAFETY:
- It is this contractor's responsibility to provide full fall protection per Barton Malow requirements. Any workers found deficient will be permanently removed from the jobsite
 - Provide each worker within this category with a hardhat (newer than 5 years old), safety glasses, reflective safety attire, work gloves, and other PPE required to perform job per the Barton Malow safety requirements. This is required at all times while working onsite. Failure to provide will result in removal of worker from site. Please review Barton Malow safety manual for specifics.
 - All contractors are to take part in Barton Malow's stretch and flex program daily and turn a sign in sheet with daily report with those who participated in the program. Please review the Barton Malow safety manual for specifics.
 - All contractors must provide a person who is trained and certified in working around lead materials. This "certified lead renovator" must be on site when all demolition is occurring or when lead materials are effected by construction. Proof of training and a certificate must be provided to Barton Malow during submittal phase confirming the training of the individual. The contractor must also meet all new Federal, OSHA, MIOSHA, and DEQ requirements regarding lead.

- Each person working on site shall review the BMC safety orientation video before beginning work. Each contractor shall submit documentation that all of their employees have viewed the video.

Excluded:

1. Testing and balancing
2. Installation of control valves provided to the Mechanical Contractor
3. Occupancy Sensors (provided and installed by Mechanical Contractor)

SPECIAL CONSIDERATIONS:

1. This project is subject to the State of Michigan Prevailing Wage. Review the Labor Relations section for prevailing wage rates for this project. Monthly certified payroll must be made available upon request.
2. All work under this scope shall comply with proper trade jurisdictions, even if it is necessary to assemble composite crews or subcontract to appropriate trades.
3. Bid proposals must be per plan and specs. Bids not conforming to plans and specifications will be rejected. Substitutions must be pre-approved in writing prior to bids or be submitted as voluntary alternates on the bid form.
4. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings. All dimensions must be verified in the field.
5. Anyone listed on the National Sex Offender List is not allowed to be a part of this project and anyone who is convicted of a listed offense will be immediately dismissed from project. Provide photo identification upon arriving to the site and badges are to be worn by Contractor's field personnel at all times.
6. Provide photo identification badges to be worn by Contractor's field personnel at all times.
7. Contractor is responsible to furnish all Barton Malow Company start-up documents and submit submittals within two (2) weeks of contract award. This includes signed contract, bonds, certificate of insurance with CG 20 10 01 85 AND CG 20 37 10 01 endorsements, schedule of values, contact list, signature list, sub/supplier list, site specific safety program, MSDS's, and the Barton Malow Company Safety Certificate (section 01600). The submittal register will be issued at award of contract. Each contractor and office engineer is to attend a 2-Part Construction Kick-Off and Pre-Construction Meeting.
8. Bidder shall complete the Bid form in its entirety, special attention is directed to the Labor Rate, Alternates and Unit Prices Section of the Bid Form.
9. This Bidder is required to submit alternate prices identified in the Bidding Documents, which pertain to their work. These alternate prices must be separate from their base bid on the Bid Proposal Form as described in Section 00200 Instructions to Bidders.
10. The special provisions outlined in Section 00210 Description of the Work form a part of this bid category work description and apply to this bidder's scope of work.
11. All bidders are required to review the General Conditions of the contract located in Section 00700.
12. Every contractor performing Demolition of any type must provide a person who is trained and certified in lead renovation. This "certified lead renovator" must be on site at all when demolition

work is occurring. The contractor must also meet all new OSHA, MOSHA, and DEQ requirements regarding lead. Contractors will be required to supply their firm's name and copy of the certifications of the "Certified Lead Renovator" card as well as a copy of their firm's certifications as a startup document. All other photo documentation requirements as required under the regulation will be required to be provided during the "closeout" phase of construction (as well as a copy maintained by the contractors for 3 years after date of substantial completion). The contractors will be required to post a notification packet in the buildings notifying all occupants of the upcoming renovations. Please visit the EPA's website www.EPA.gov/lead for more information.

13. According to new EPA federal mandate, beginning April 2010 contractors performing work that disturbs lead-based paint in schools built before 1978 must be EPA certified and follow specific work practices to prevent lead contamination. It will be the responsibility of all contractors on site to follow proper work practices to prevent lead contamination. For more information, please review section 00810.
14. This contractor is responsible to create a safety binder which will include the following information: site specific safety program, signed safety agreement (01600), MSDS sheets, Asbestos Training Certificates, CPR/first aid certificates, Lift certifications, Lead Renovators Certificates, MIOSHA 30 training Certificates, Storm Water Certificates, Equipment Maintenance Logs, Equipment Training Letters, Roof Work Permits, & Letter indicating competent person. This information will be organized and clearly marked with the contractors name, address and division on the exterior of a 3 ring binder for each building you will be working at, include this safety binder as an item on your schedule of values with a value of \$1,000.00.
15. Provide daily clean-up and weekly unidentifiable clean-up, according to Barton Malow standards, including subcontractors for work of this bid category. If daily clean-up and weekly unidentifiable clean-up is not performed, the construction manager will provide labor to complete the clean-up and the appropriate contractors will be back charged.
16. If contractor is behind schedule and is notified by Barton Malow Company, the contractor shall be required to accelerate the work at its own expense. The contractor shall employ such means as overtime work, multiple work shifts, and additional equipment, and shall continue to do so until the progress of the work, in the opinion of Barton Malow, is in conformance with the master project construction schedule.

END OF BID CATEGORY 230900 - INSTRUMENTATION AND CONTROL FOR HVAC

BID CATEGORY 26 00 00 – ELECTRICAL

The work of this bid category includes but is not limited to providing all labor, equipment, materials, scaffolding, hoisting and incidentals to complete all the **Electrical** in accordance with the specifications, drawings and applicable codes. All work is to be performed as shown on the plans and specified in the following technical specification sections:

Specification SectionDescription of Section**DIVISION 01 – GENERAL REQUIREMENTS – ALL****DIVISION 02 – EXISTING CONDITONS**

024119

Selective Demolition

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

078413

Firestopping

079200

Joint Sealants

DIVISION 26 – ELECTRICAL – ALL**DIVISION 27 – COMMUNICATION – ALL****DIVISION 28 – ELECTRICAL SAFETY AND SECURITY - ALL**

In addition to the above, this bid category includes but is not limited to the Bidding Documents, the Bidding and Contract requirements and Division 1 General Requirements of the Project Manual and various other Technical Specifications interfacing with this work. The bidder is advised to review the work descriptions of the other categories and other referenced documents so as to not misunderstand scope responsibilities.

THE SCOPE OF THIS BID CATEGORY SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

1. It is the responsibility of this Bid Category to review all drawings & drawing notes, including civil, architectural, structural, mechanical, and electrical drawings, and include items requiring work that is generally defined as the responsibility of this Bid Category within the work description unless otherwise noted above in the scope of work.
2. This contractor shall be responsible for receiving, off-loading, hoisting into/onto building including the safe and secure storage of materials related to this work.
3. Coordinate with other trades, including mandatory participation in job meetings.
4. Provide daily clean-up according to Barton Malow standards, including daily removal of all materials and debris related to this category. If daily clean-up is not performed, the Construction manager will provide a laborer to complete the clean-up and the appropriate contractor will be back charged.
5. This contractor will be responsible for all re-mobilization costs for all phases of work.
6. This contractor is to provide all legal disposal off-site of the debris that is a result of their work.
7. Coordinate the location and sizes of all openings with the appropriate trades.
8. This contractor shall be responsible for layout engineering, and ongoing clean up as it pertains to this work, coordinate layout with other contractors.

9. Before sawcutting or making any cuts in the floor, all contractors must use ground penetrating radar, and must provide proof that it was used, to the Barton Malow site superintendent.
10. In all locations where this contractor sawcuts the floor, this same contractor is also responsible for pouring back concrete. This contractor must coordinate with flooring contractor as to provide proper floor finish and height.
11. Any ceilings accessed are this contractor's responsibility to remove and reinstall. Coordinate above ceiling work with mechanical and architectural trades.
12. This contractor shall be responsible for receiving, off loading, hoisting into/onto building including the safe and secure storage of materials related to this work.
13. For the duration of your work, all building systems must remain operational and there shall be no interruption to the owner's systems while they are occupying the building unless previously instructed by BMC. Coordinate and schedule shut-downs as required for this contractors work during off-hours.
14. Obtain approvals, permits and coordinate the inspection and testing of the systems with state governing agencies. This contractor is responsible for and shall coordinate all work with public utility companies, as required. Pay for all fees and testing charges for each system. The contractor's field superintendent shall be present during testing and field reviews conducted by the various inspection agencies.
15. This contractor is responsible for all testing of electrical systems, sound systems, and fire alarm system upon completion of the installation.
16. This contractor will provide all temporary lighting and power per code and to meet minimum OSHA and **BMC requirements.**
17. Provide and maintain all necessary barricades, safety and warning devices until work is safe and complete.
18. Include a \$3,000 allowance for dumpsters in base bid.
19. All wiring/wiring paths to be per this contract. Verify all cable runs to be within specified distance.
20. Provide blank covers for data receptacles not used.
21. Rough-ins and final electrical connections for mechanical and electrical equipment, specialties, and casework, as specified. Coordinate with other trades to provide all required electrical connections. Furnish and install all electrical equipment and accessories as related to other trades.
22. The first floor sub-grade will be placed and compacted prior to the start of the underground work designated in this package. This contractor is responsible for all layout, excavation, backfilling, and compaction for any underground or underfloor electrical work required. Replace all fill to the specified density following excavation for the work of this category.
23. Contractor is responsible for removal all spoils resulting from their work from the site.
24. Verify and stake locations of all underground utilities before work begins.
25. Coordinate with Architect/Engineer before penetrating any structural members.
26. Provide proper identification of panels, circuits and systems.
27. Furnish and install all specified backing and supports for fixtures and equipment.

28. This contractor will provide all conduit, wiring, panels, devices, switches and accessories necessary for the installation of a complete power system.
29. Provide all required escutcheons, pedestals, etc. for finish trim for this scope of work, as specified.
30. Provide and locate all access doors to architectural trades for setting as required for access to electrical equipment.
31. This contractor is to wire all motors, disconnect switches, and starters supplied by either themselves or category 230000.
32. Furnish all pipe and conduit sleeves with bushings at each end and provide and install fire stopping for all penetrations through rated walls created by or for electrical systems.
33. Provide and install all conduits, raceways, and boxes for telephone and computer (data) system. This contractor must coordinate with the Owner's representative as to size and type of equipment.
34. Furnish, install and maintain all weather protection as required to carry out the scope of work
35. Provide and install complete fire alarm system as described in the technical specifications, supporting phasing of the project, shown on the drawings, and required to meet applicable codes and regulations. Coordinate all fire alarm work with mechanical contractor's work to provide all required safety and emergency shut down features.
36. This contractor will be responsible to provide and install smoke detectors to the building fire detection system and electrical service.
37. This contractor is responsible for and shall coordinate all work with public utility companies, as required. Pay for all fees and testing charges for each system. Follow up with fire alarm contractor to insure drawings are sent to the state as soon as possible for review. New fire alarm devices must be installed, tested & inspected and operational prior to school.
38. Provide duct mounted smoke detectors to category 230000 for installation. This contractor will be responsible to connect smoke detectors to the buildings fire detection system and electrical service.
39. Provide all equipment pads required for electrical equipment shown or not shown but required for a complete installation.
40. This contractor is responsible for the cutting and patching of all existing materials for the installation of all electrical work. All penetrations through walls and ceilings will be fire and smoke stopped where as to comply with the State Fire Safety Requirements. Provide and install all firestopping materials. Contractor shall restore all surfaces to match existing conditions. This shall include all drywall, masonry, concrete, acoustical ceilings, steel, windows, insulated wall panels, plaster, painting, and caulking work.
41. Provide and install all clocks, integrated intercom/telecommunications, sound system, and connections to projection system equipment as shown and specified, including all related materials.
42. Provide protection of equipment. Damage to equipment due to a lack of adequate protection will be the responsibility of this contractor.
43. Provide complete lighting system with occupancy and/or automated lighting controls, as required.
44. This contractor will be responsible for all electrical demolition as shown on drawings. This is to include all conduit, wiring, light fixtures, etc. This contractor is responsible for all disconnects for their own demolition as well as disconnects of the existing mechanical and kitchen equipment.

45. Each contractor performing demolition shall be responsible for protecting new and existing construction from damage due to their own work. If any adjacent surfaces are damaged, it will be the sole responsibility of the contractor at fault to completely repair and replace all damaged construction to the satisfaction of the Owner, Construction Manager, and Architect.
46. This contractor is responsible for the cutting and patching of all existing materials for the installation of all electrical work. All penetrations through walls and ceilings will be fire and smoke stopped where as to comply with the State Fire Safety Requirements. Provide and install all firestopping materials. Contractor shall restore all surfaces to match existing conditions. This shall include all drywall, masonry, concrete, acoustical ceilings, steel, windows, insulated wall panels, plaster, painting, and caulking work.
47. Any fire protection/fire alarm/other utilities, remove and replace in order to perform own work. Have appropriate contractor reinstall lines.
48. Where drawings call for light fixtures to remain or be re-installed in a new ceiling grid; this contractor shall either remove and safely store the fixtures for later reinstallation OR tie the fixtures up in an appropriate manner.
49. In rooms where existing ceiling is not scheduled to be removed and replaced, this contractor will be responsible for removal and replacement of ceiling as required to perform their work.
50. This contractor will furnish, upon completion of the work, as-built electronic drawings showing the installation of the work as completed and operating and maintenance manuals as described in the specifications and as required by owner.
51. It is the responsibility of this Bid Category to review all drawings & drawing notes, including civil, architectural, structural, mechanical, and electrical drawings, and include items requiring work that is generally defined as the responsibility of this Bid Category within the work description unless otherwise noted above in the scope of work.
52. This contractor is to review the scope of work for division 23 mechanical for work by this bid category. If there is any confusion on the scope of work for these related categories submit a pre-bid RFI or clarify what is and is not included on the bid proposal form. This contractor's work will interface with the work of division 23 Mechanical in areas of wiring valves alarms, flow switches, detectors, control wiring, equipment etc. This bid division must be familiar with all related electrical requirements.
53. Reference all drawings. This contractor is responsible for all demo notes and new work notes on all electrical drawings.
54. Rough-ins and final electrical connections for mechanical and electrical equipment, specialties, and casework, as specified. Coordinate with other trades to provide all required electrical connections. Furnish and install all electrical equipment and accessories as related to other trades.
55. This contractor is responsible to provide power wiring to automatic door actuator stations.
56. All extras must be submitted within 60 days, or cost will be voided.

EXCLUDED FROM THIS CONTRACTOR'S WORK IS:

1. None

SPECIAL CONSIDERATIONS:

1. All demolition work is assigned to the individual contractors that are responsible for the particular material or work in question. The contractor is to perform all demolition of the materials assigned in the specification sections listed in their own Description of Work, unless otherwise noted.
2. No deliveries will be accepted in or out of the construction site during the hours after 7:00pm and before 7:00am.
3. Provide adequate supervision of your sub-contractors and your field personnel. This includes a field superintendent responsible for all work with the ability to make decisions.
4. Every contractor performing Demolition of any type must provide a person who is trained and certified in lead renovation. This "certified lead renovator" must be on site at all when demolition work is occurring. The contractor must also meet all new OSHA, MOSHA, and DEQ requirements regarding lead. Contractors will be required to supply their firm's name and copy of the certifications of the "Certified Lead Renovator" card as well as a copy of their firm's certifications as a startup document. All other photo documentation requirements as required under the regulation will be required to be provided during the "closeout" phase of construction (as well as a copy maintained by the contractors for 3 years after date of substantial completion). The contractors will be required to post a notification packet in the buildings notifying all occupants of the upcoming renovations. Please visit the EPA's website www.EPA.gov/lead for more information.
5. All contractors are to field verify all existing conditions prior to submitting a bid. Submitting a bid is acceptance of all field conditions. Do NOT scale the drawings. All dimensions must be verified in the field.
6. Provide photo identification badges to be worn by Contractor's field personnel at all times. This contractor will be responsible for all re-mobilization costs for all phases of work.
7. Contractor is responsible to furnish all Barton Malow Co. start-up documents electronically and sworn affidavits within two (2) weeks of contract award. This includes signed contract, bonds, certificate of insurance, shop drawings and submittals
8. **This contractor is responsible to create a safety binder which will include the following information: site specific safety program, signed safety agreement (01600), MSDS sheets, Asbestos Training Certificates, CPR/first aid certificates, Lift certifications, Lead Renovators Certificates, Storm Water Certificates, Equipment Maintenance Logs, Equipment Training Letters, Roof Work Permits, & Letter indicating competent person. This information will be organized and clearly marked with the contractors name, address and division on the exterior of a 3 ring binder for each building you will be working at, include this safety binder as an item on your schedule of values with a value of \$1,000.00.**
9. Bidder shall complete the Bid form in its entirety, special attention is directed to the Allowances, Alternates and Unit Prices Section of the Bid Form.
10. This contractor is responsible to include all overtime and or shift time to avoid interfering with the owner operation and to meet the project schedule.
11. The electrical contractor is to use AudioSentry for the security and National Time for the fire alarm portion of their work.

END OF BID CATEGORY 26 00 00 – ELECTRICAL

SECTION 00230 SCHEDULE AND PHASING

1. GENERAL

1.1. MILESTONE SCHEDULE

- 1.1.1. The following are the milestone schedule dates for the listed Work and will become a part of the Contract Documents. The master construction schedule will be developed after award of the Agreement with Contractor input.

Building	Milestone Activity	Scheduled Start	Scheduled Completion
Boulan	Demolition	July 16, 2018	July 31, 2018
Boulan	Construction	September 2018	December 2018

- 1.1.2. It is expressly agreed that time is of the essence for the completion of Work under the Agreement and Contractor agrees to perform the Work within the allotted time and in the manner specified. Contractor shall be liable for any and all damages and expenses suffered by the Owner or CM arising or resulting from the failure of Contractor to perform the Work in accordance with the construction schedule.

1.2. CONSTRUCTION SCHEDULE DEVELOPMENT PROCESS

- 1.2.1. Contractor agrees to commence Work in the field within five (5) Days after being notified to do so by the CM. Contractor shall diligently perform and fully complete all Work to the satisfaction of CM and Owner.
- 1.2.2. Work shall begin at such points as CM may designate and shall be carried to completion with the utmost speed.
- 1.3.2. Contractor shall submit to CM within fifteen (15) Days of award of the Agreement all necessary scheduling information, in form and substance satisfactory to CM of all activities contained in the Contractor's scope of Work, including activity descriptions and durations in working days, for shop drawings, fabrication, delivery and installation of products, materials and equipment. This schedule shall identify precedent relationships between Contractor's activities and those of other contractors, the dollar value, necessary manpower loadings, and precedent activities for other contractors. The activities on the schedule must be at a level of detail approved by CM and should agree with the terminology and building sequencing established by CM. CM will compile all Contractors' schedules and develop a project master construction schedule. Once the individual contractors schedules are agreed upon by CM, this project master construction schedule will become the project plan for construction.
- 1.3.3. Special requirements and/or sequencing issues should be brought to the attention of CM. It is intended the milestones remain in effect and all Bidders agree to accept the milestone dates. CM reserves the right to revise the project master construction schedule as deemed necessary.
- 1.3.4. CM shall periodically update the project master construction schedule and display it at the Project site. Contractor shall familiarize itself with the project master construction schedule and how it will affect or modify its operations, including coordination with the activities of other contractors. Reasonable changes in sequencing, durations and phasing are to be expected with each master schedule update. These changes will be made by Contractor at no additional cost. Reasonable changes in sequencing, durations, and phasing are to be expected with each master schedule update. These changes will be made by Contractor at no additional cost.
- 1.3.5. If it is apparent Contractor is unable to perform its Work in the sequence indicated or the time allotted, Contractor must notify CM within five (5) Days after initial publication of the project master construction schedule. Contractor's schedule of activities may be re-sequenced, and the schedule may be adjusted, provided all Work is completed within the stated milestone dates and provided CM and affected contractors are notified of the change within five (5) calendar days of

receipt of the schedule and the change does not otherwise negatively impact the other scheduled work; otherwise, the project master construction schedule shall be deemed accepted by all parties and becomes a contractual requirement for each Contractor.

- 1.3.6. If Contractor delays progress for any reason other than those delays specifically excused under the Contract Documents, Contractor will take all necessary steps to expedite its Work to maintain milestone target dates at no expense or additional cost to Owner or CM.
- 1.3.7. If Contractor is behind schedule and is so notified by CM, Contractor shall be required to accelerate the Work at its own expense. Contractor shall furnish to CM a short interval schedule of its Work showing location, number of men and crew required to get back on the agreed upon master construction schedule. If Contractor fails to maintain and meet the short interval schedule, Owner through CM reserves the right to take whatever steps it deems necessary in its sole discretion to recover the schedule at the Contractor's expense. The Contractor shall employ such means as overtime work, multiple work shifts, and additional equipment, all without additional compensation, and shall continue to do so until the progress of the Work, in the opinion of CM, is in conformance with the master project construction schedule.
- 1.3.8. Contractor agrees that it shall have no claim against the Owner, Architect, or CM for an increase in the contract price or for a payment or allowance of any kind for damage, loss, or expense arising or resulting from delays, regardless of whether the delay is the basis for an extension of time. This provision includes claims for damage, loss, or expense arising or resulting from interruptions to, or necessary suspension of, Contractor's Work to enable other contractors to perform their work.

END OF SECTION 00230

SECTION 00400
BID PROPOSAL FORM
(Submit in Triplicate - Fill in all Blanks)

DATE: _____

TO: Troy School District
1140 Rankin
Troy, MI 48083

PROJECT: Troy School District 2013 Bond Program
Series 2, Bid Package #24
Boulan Park Middle School Old Office
Renovation

ATTN: Todd Hensley
Purchasing Supervisor

CM :Barton Malow Company

Architect: TMP Architecture

Name of Bidding Co.:

Contact Name:

Email Address:

Business Address:

Phone Number:

**Bid Proposal for
Category(ies):**

Bidder, in compliance with the Advertisement to Bid for construction contemplated for Bid Package No. 24-General Trades items for Costello, Martell, Morse and Leonard Elementary Schools having carefully examined the Bidding Documents and the site of the proposed Project and the conditions affecting the proposed Work in the Bid Category(ies) including the condition of the Project site, any surface or subsurface obstruction, the actual levels, all excavating, filling in, removal and demolition, measurements and quantities involved in the Work, the availability of labor, materials and equipment, and the weather conditions that may possibly may be experienced in the Project vicinity, proposes to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, superintendence, and services as are necessary to perform all Work in the Bid Category(ies) stated in accordance with the Contract Documents for the Base Bid and Alternate amounts stated below.

If identified as one of the apparent lowest bidder(s) for a Bid Category Bidder agrees to meet immediately with CM and shall submit post bid information as described in Section 00200 Instructions to Bidders.

Bidder, if awarded a contract, agrees to: (1) execute the Agreement within fifteen (15) days of receiving notice of the award; (2) provide performance/payment bonds and insurance certificates in full compliance with the Contract Documents, (3) submit the Project Safety Program as described in Section 00200 Instructions to Bidders; (4) commence Work upon execution of the Agreement or at such other time as directed in the notice of award, and (5) to complete its Work in accordance with the Contract Documents and within the milestone activity dates and durations set forth in the Bidding Documents and subsequent construction project master schedule established by CM. In the event Bidder defaults in complying with any portion of this paragraph, Bidder specifically agrees that the entire bid security

amount shall become the property of Owner as liquidated damages constituting the reasonable estimate of the damages that Owner would incur for delays and additional expenses in the event of such default, and not as a penalty.

BASE BID: Bidder agrees to perform all Work for Bid Category(ies) as described in the Contract Documents, for the Base Bid(s) stated below. The Base Bid(s) shall include the cost of Performance and Payment Bonds. For each Bid Category to be bid, include the Base Bid, written and in figures, the cost of the Performance Bond and Payment Bond which is included in the Base Bid, written and in figures, and the Bid Category and description.

(Show amounts in both words and figures. In case of discrepancy, amount shown in words will govern).

BID CATEGORY	WRITTEN DESCRIPTION/AMOUNT(S)	BID AMOUNT
1. Bid Category 060000 General Trades	_____	\$ _____
	_____ DOLLARS	
2. Bid Category 230000 Temperature Controls	_____	\$ _____
	_____ DOLLARS	
3. Bid Category 230000 Mechanical	_____	\$ _____
	_____ DOLLARS	
4. Bid Category 260000 Electrical	_____	\$ _____
	_____ DOLLARS	

HOURLY LABOR RATES: All contractors are required to provide their company's hourly labor rates as they apply to this project. The contract may be awarded based on this information. Failure to quote the following hourly labor rates will result in an incomplete bid proposal form and may be disqualified by Troy School District.

JOB TITLE	HOURLY RATE
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

UNIT PRICES: The following Unit Prices to Base Bid Categories are required to be offered by the respective Bidders. Bidder agrees that the following amounts will be used in determining contract changes from the Base Bid for authorized Changes in the Work. Bidder shall not include these unit costs in the Base Bid amount(s). All unit prices shall include Bidder's mark-up for overhead and profit.

BID CATEGORY CODE	DESCRIPTION OF UNIT PRICE	UNIT PRICE	
		ADD	DEDUCT
1. _____	_____	\$ _____	\$ _____
2. _____	_____	\$ _____	\$ _____
3. _____	_____	\$ _____	\$ _____

COMBINED BID PRICING

ALTERNATES: The following Alternate(s) to Base Bid(s) are required to be offered by the respective Bidders. In the event the Alternate is accepted, Bidder agrees to perform all Work necessary to complete the Work as modified by the Alternate in full accordance with the Contract Documents, for the following add or deduct from the Base Bid as indicated: (Show amount(s) in both words and figures for Alternates. In case of discrepancy, amount shown in words will govern. Enter a dollar amount in each, even if the amount is \$0.00. Terminology such as "No Bid", "Not Applicable", "No Change" or "Does Not Apply", shall not be used. If the Alternate does not apply to the Bidder, enter \$0.00.)

No Alternates are included in BP#24.

VOLUNTARY ALTERNATES: The following voluntary Alternates are offered by the Bidder. Bidder agrees that the amounts indicated below shall be added to or deducted from the Base Bid, as indicated, for each voluntary Alternate that is accepted. (Show amount(s) in both words and figures for voluntary alternates. In case of discrepancy, amount shown in words will govern).

BID CATEGORY	WRITTEN DESCRIPTION OF VOLUNTARY ALTERNATE AMOUNT(S)	ADD	DEDUCT
1. _____	_____	\$ _____	\$ _____

For the amount of: _____
 _____ DOLLARS

Bidder is required to submit sufficient detailed information to fully describe each voluntary Alternate(s) on a separate sheet(s) attached to this Bid Proposal form.

All applicable taxes and bond costs are included in the above Base Bid and all listed Alternates and Unit Prices.

Bid Security in the form of a bid bond from a qualified surety (), certified check (), or cashier's check (), (check one) accompanies this proposal in the amount of five (5) percent of the Base Bid amount(s). Bidder agrees that this Bid Proposal shall be irrevocable for a period of 90 Days after the day and time designated for receipt of the Bid Proposal in Section 00100 of the Project Manual.

As of the date of submission of the Bid Proposal, Bidder's worker's compensation Experience Modification Rate (EMR) for the state in which the Work is to be performed is _____. Bidder has attached to the Bid Proposal form the OSHA Form 200 / 200S indicating recordable incidence rates for the last calendar year per 200,000 man-hours for the following categories:

- | | |
|--|-------|
| 1) Total Cases | _____ |
| 2) Lost Workday Cases | _____ |
| 3) Non-fatal Cases Without Lost Workdays | _____ |
| 4) Employee Hours Worked Last Year | _____ |
| 5) Fatalities in the last year (if yes describe below) | _____ |

Has Bidder been cited by state or federal OSHA for any serious or willful violation? If yes, please describe:

Bidder understands that the Owner reserves the right to reject any or all Bid Proposals and to waive any informalities or irregularities therein.

Bidder acknowledges receipt of the following Addenda (identify no. and date of each): _____

Bidder acknowledges receipt of the pre-bid conference minutes dated _____

If awarded a contract, Bidder's surety will be _____.

Check

☐ I have included a fully executed and notarized copy of the familial disclosure form set forth in Section 00410 of this Project Manual with my Bid Proposal.

Bidder accepts the provisions of the Bidding and Contract Documents and certifies that this Bid Proposal is submitted in good faith and without collusion with any other person or entity submitting a Bid Proposal for the Work. If Bidder is required to be licensed in the state where the work is performed add "Bidder certifies that it meets all licensing requirements of the state in which work is to be performed, its current license number and classification are as follows: _____ Bidder hereby affixes its authorized signature(s) representing (check one):

_____ An individual doing business as _____

_____ A partnership

_____ A limited liability company, organized in _____ (enter state)

_____ A corporation, organized in _____ (enter state)

_____ Joint venture formed between _____ and _____

_____ (Signature from authorized representatives of each partner are required)

_____ An Agent with a Current Power of Attorney must be attached to this bid form.

Signature(s): _____ Title: _____

_____ Title: _____

Legal Name of Firm: _____

Business Address: _____

Telephone Number: () _____

(All interlinear marks, alterations or erasures shall be initialed by the signer of the Bid Proposal)

END OF SECTION 00400

SWORN AND NOTARIZED FAMILIAL DISCLOSURE STATEMENT

FAMILIAR DISCLOSURE AFFIDAVIT

The undersigned, the owner or authorized office of the below-named contractor (the ‘Contractor’), pursuant to the familial disclosure requirement provided in Troy Schools, hereby represents and warrants that, excepts as provided below, no familial relationship exists between the owner or key employee of the Contractor, and any member of the Troy School Board or the Troy School Superintendent. A list of the School District’s Board of Education Members and its Superintendent may found at <http://www.troy.k12.mi.us>.

List any Familial Relationships:

Contractor:

Print Name of Contractor

By: _____

Its: _____

Subscribed and sworn before me, this _____

Seal:

day of _____, 20____, a Notary Public

in and for _____ County, _____

(Signature)
NOTARY PUBLIC

My Commission expires _____

CERTIFICATION OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT***Michigan Public Act No. 517 of 2012***

The undersigned, the owner, or authorized officer of the below-named Company, pursuant to the compliance certification requirement provided in Troy School District's Request For Proposal, the "RFP", hereby certifies, represents, and warrants that the Company and its officers, directors and employees, is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event the Company is awarded a contract by Troy School District as a result of the aforementioned RFP, the Company is not and will not become an "Iran Linked Business" at any time during the course of performing any services under the contract.

The Company further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or two (2) times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of Troy School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date the it is determined that the person has submitted the false certification.

Contractor:

Print Name of ContractorBy:

Its:

Subscribed and sworn before me, this _____ Seal:

day of _____, 20 _____, a Notary Public

in and for _____ County, _____

(Signature)
NOTARY PUBLIC

My Commission expires _____

END OF SECTION 00410

SECTION 00500 AGREEMENT

1 AGREEMENT FORM

- 1.01 The form of Agreement that will be used for Work under this Bid Package shall be AIA Document 132 Standard Form of Agreement between Owner and Contractor, CMA 2009 Edition. The above Agreement Form is included immediately behind this section.

2. GENERAL CONDITIONS OF THE CONTRACT

- 2.1. AIA 232 Document **General Conditions of the Contract for Construction, 2009 Edition** is bound within this Project Manual and is a part of the Contract Documents.

3. INSURANCE

- 3.1. The description box on the ACORD certificate must be endorsed as follows:

For Troy School District 2013 Bond Projects: Barton Malow Company, Troy School District, are added as additional insureds on the Insured's commercial general liability policy, excess liability policy, automobile liability policy, and contractor's pollution liability policy, with respect to liabilities arising out of the operations or "work" performed by or on behalf of the Insured and in accordance with all Contractor requirements for such coverage. Coverage for the additional insureds is primary and non-contributory with any other insurance available to the additional insureds, whether such other insurance is available on a primary or excess basis. Waivers of subrogation apply in accordance with Contractor requirements.

- 3.2. A sample of the Certificate of Insurance (ACORD) form at the end of this Section.
- 3.3. CM Contractor Insurance Requirements for Agency Work, PRO 15.14, shall govern this Project. A copy of these Insurance Requirements is included in the following page(s):



**BARTON MALOW COMPANY
CONTRACTOR
INSURANCE REQUIREMENTS**

For agency work

March 10, 2008

1. As a condition of performing work under the Agreement, Contractor will keep in force, at all times during performance of the Work, policies of insurance covering all Basic Insurance Requirements and any applicable Supplemental Insurance Requirements. The requirements identified below are minimum requirements. If the Agreement or other Contract Documents impose additional or higher standards, Contractor shall meet those as well. Where a Controlled Insurance Program ("CIP") is specified in the Contract Documents, these insurance requirements shall not apply to coverages supplied by the CIP, but shall apply to coverages which Contractor is required to carry outside the scope of the CIP.

2. **Basic Insurance Requirements**

- 2.1. Workers' Compensation covering Contractor's statutory obligations in the State(s) in which the Work is to be performed or Federal statutory obligations, if applicable to the Project, and Employers' Liability insurance with limits of liability of \$1,000,000 EL Each Accident, EL Disease – Each Employee, and EL Disease – Policy Limit. Where applicable, a US Longshore and Harborworker's Compensation Act endorsement must be included.

- 2.1.1. If Contractor employs the services of leased employees for the Work or for a portion of the Work, it will be required to submit evidence, to the satisfaction of Barton Malow Company, that such leased employees are fully covered by the minimum limits of Workers' Compensation and Employers' Liability Insurance. Such evidence shall include, but not be limited to, submission of the applicable leasing agreement.

- 2.2. Automobile Liability insurance with the limit of \$1,000,000 per accident covering Contractor's owned, non-owned and hired automobiles.

- 2.3. Commercial General Liability insurance written on the 1988 ISO OCCURRENCE policy form or subsequent versions with limits of liability as follows:

General Aggregate	\$ 2,000,000
Products-Completed Operations Aggregate	\$ 2,000,000
Personal/Advertising Injury	\$ 2,000,000
Each Occurrence	\$ 2,000,000

This coverage shall include coverage for premises-operations, independent contractors' protective, products and completed operations, personal injury and broad form property damage (including coverage for explosion, collapse, and underground hazards), and Contractual Liability protection with respect to Contractor's indemnification obligations under the Contract Documents. Products-completed operations coverage must be maintained for at least two years after final completion of the Project.

3. **Supplemental Insurance Requirements**

- 3.1. Watercraft Protection and Indemnity Liability insurance if any of the Work is on or over navigable waterways or involves use of any vessel. Limits are to be approved by Barton Malow Company in writing.
- 3.2. Aircraft Liability insurance if any aircraft is used in performance of the Work. Limits are to be approved by Barton Malow Company in writing.
- 3.3. Railroad Protective Liability insurance if any of the Work is on or within 50 feet of any railroad or affects railroad property, including but not limited to tracks, bridges, tunnels, and switches. Limits are to be approved by Barton Malow Company in writing.
- 3.4. Professional Liability insurance, if Professional Services are provided, with limits of liability as follows:

Each Claim	\$ 5,000,000
Aggregate	\$ 5,000,000

Provided, however, that if the Subcontract Price is \$10,000,000 or less, then the following limits of liability shall apply:

Each Claim	\$ 2,000,000
Aggregate	\$ 2,000,000

Contractor shall keep such Professional Liability insurance in force during the Agreement, and for three years after final completion of the Project.

- 3.5. Pollution Liability insurance, which must be on an occurrence basis, if Environmental Services are provided. "Environmental Services" means any abatement, removal, remediation, transporting, or disposal of a Hazardous Material, or any assessments or consulting relating to same. Limits of liability for Pollution Liability insurance shall be as follows:

Each Occurrence	\$ 5,000,000
Aggregate	\$ 5,000,000

4. General Provisions

- 4.1. Every policy must be written by an insurance company licensed in the state where work is being done and is reasonably acceptable to Barton Malow Company and Owner.
- 4.2. Limits for Employer's Liability, Commercial General Liability and Automobile Liability may be attained by a combination of an underlying policy with an umbrella or excess liability policy.
- 4.3. "Barton Malow Company," Owner, and all other entities as required in the Contract Documents shall be endorsed as additional insureds on Contractor's liability insurance (including general liability, excess liability, automobile liability and pollution liability, where applicable) with respect to liability arising out of activities, "operations" or "work" performed by or on behalf of Contractor, including Barton Malow Company's general supervision of Contractor, products and completed operations of Contractor, and automobiles owned, leased, hired or borrowed by Contractor. The coverage provided by the additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, Form B CG 20 10 11 85 or CG 20 26 11 85. Forms that do not provide additional insured status for completed operations will not be accepted. In no case shall any additional insured endorsement exclude coverage for Barton Malow Company's or Owner's own negligence nor limit coverage for Barton Malow Company or Owner only to potential liability incurred solely as a result of Barton Malow Company's or Owner's acts or omissions. Furthermore, nothing in the additional insured endorsement shall limit Barton Malow Company's or Owner's products-completed operations coverage to only those liabilities arising from Contractor's "ongoing operations".
- 4.4. Contractor will furnish, before any work is started, certificates of insurance and copies of any additional insured endorsements for Contractor's liability policies showing the required coverages. Receipt by Barton Malow Company of a non-conforming certificate of insurance without objection, or Barton Malow Company's failure to collect a certificate of insurance, shall not waive or alter Contractor's duty to comply with the insurance requirements. Modifications to these insurance requirements will not be effective unless made in a writing executed by an authorized representative of Barton Malow Company. Upon written request by Barton Malow Company, Contractor will provide copies of its insurance policies.
- 4.5. Evidence of the required insurance is to be provided to Barton Malow Company on ACORD Certificate Form 25-S and must indicate:
- 4.5.1. Any coverage exclusions or deviations from the 1988 ISO commercial general liability form or subsequent versions;
- 4.5.2. A Best's rating for each insurance carrier at A minus VII or better;
- 4.5.3. That the issuing insurance company will provide thirty (30) days written notice of cancellation to the certificate holder and the words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" do not apply or have been removed;
- 4.5.4. That additional insured endorsements have been provided as required under the Contract Documents; and
- 4.5.5. Any deductibles over \$10,000 applicable to any coverage.
- 4.6. All coverage must be primary and not excess over or contributory with any other valid, applicable, and collectible insurance or self-insurance in force for Barton Malow Company, Owner, or other additional insureds.
- 4.7. Contractor will provide full coverage for all of Contractor's equipment, property and tools used in the Work.
- 4.8. Contractor shall waive, and shall require (by endorsement or otherwise) its insurers providing the coverage required by these insurance requirements to waive, subrogation rights against Barton Malow Company, Owner, and all other additional insureds for losses and damages incurred and/or paid under the insurance policies required by these insurance requirements or other insurance applicable to Contractor or its Subordinate Parties, and will include this same requirement in contracts with its Subordinate Parties. If the policies of insurance referred to in this paragraph require an endorsement to provide for continued coverage where there is a waiver of subrogation, the owners of such policies will cause them to be so endorsed.

- 4.9. Contractor will send or fax a copy of these insurance requirements to its agent when an insurance certificate is requested to assure that the policies comply with the insurance requirements.
- 4.10. If Contractor requires its Subordinate Parties to provide additional insured endorsements in favor of Contractor, those endorsements shall be extended to Barton Malow Company, Owner and all other required additional insureds.
- 4.11. Contractor's duty to provide the insurance coverage set forth in these insurance requirements is a severable obligation from Contractor's indemnification obligations under the Contract Documents. Nothing in these insurance requirements shall be deemed to limit Contractor's liability under the Agreement.
- 4.12. If these insurance requirements are used in conjunction with a Project where an Affiliated Company of Barton Malow Company is acting as Construction Manager, Design Builder or otherwise (the "Construction Entity"), the term "Barton Malow Company" as used in these insurance requirements shall be deemed to be replaced with the name of the Construction Entity, and the additional insured requirements of Section 4.3 above shall be amended to include "Barton Malow Company", and all partners and/or members of the Construction Entity as applicable. "Affiliated Company" means any entity in which Barton Malow Company has an ownership interest.

END OF DOCUMENT PRO 15-14

4. BOND REQUIREMENTS

4.1. PERFORMANCE BONDS AND PAYMENT BONDS

- 4.1.1. Troy School District will, require Contractor to furnish a Performance Bond and a Payment Bond, in amounts equal to the Agreement price, by a qualified surety naming both the Owner and CM as Obligees. All sureties providing bonds on this Project must be listed in the Department of Treasury's Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" with the bond amounts less than or equal to the underwriting limitation indicated in the Circular, and/or must have an A.M. Best rating of A – VII or better. Bonds shall be duly executed by the Contractor, as principal, and by a surety that is licensed in the state in which the Work is to be performed.
- 4.1.2. The Contractor shall deliver the required bonds to CM prior to execution of the Agreement. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder, at a minimum, shall submit evidence to the satisfaction of CM that such bonds will be furnished prior to commencement of on-site Work. In no event may the Contractor commence on-site Work without the required bonds properly issued and delivered.
- 4.1.3. Performance Bond and Payment Bond unmodified form AIA Document or A312 (1984 Edition) must be used for this Project.
- 4.1.4. The Bidder's proposed surety must be acceptable to the Owner and CM. If, at any time, after acceptance of the Contractor's bonds, the surety fails to meet the stated criteria Contractor must, as a precondition to continuing Work and receiving further payments, replace the bonds with bonds from a surety that meets the stated criteria.
- 4.1.5. The Performance and Payment Bond penal sums (i.e., the Agreement price) must be listed as a separate line item in the schedule of values.
- 4.1.6. In the event of a Change Order, the penal sum of any required Performance and Payment Bonds shall be adjusted to equal the adjusted Contract Price. CM or Owner shall have the right to request submission of bond riders, issued by the original qualified surety, evidencing that such adjustments to the penal sum of the bonds have been accomplished. Notwithstanding the foregoing, in the next pay application after the Agreement price has been increased by twenty-five percent (25%) or more, as a condition precedent to payment, Contractor shall deliver a bond rider issued by the original qualified surety evidencing that the appropriate adjustment in penal sums has been accomplished.

END OF SECTION 00500

SECTION 00810
ON-SITE PROJECT SAFETY AND LOSS CONTROL PROGRAM

1 SUBCONTRACTOR'S SAFETY REQUIREMENTS

1.01 Generally the Subcontractor

- 1.01.1 is responsible for its own Safety Program for Work on this Project that is at least as stringent as the requirements set forth in this section of the Project Manual.
- 1.01.2 shall provide a safe workplace and shall otherwise take all precautions for the safety of Subordinate Parties and persons and property in or near the premises where Work is being performed.
- 1.01.3 shall comply with all applicable federal, state and local laws, rules and regulations, including, but not limited to, applicable provisions of the Occupational Safety and Health Act ("OSHA") and/or the governing state law.
- 1.01.4 shall comply with all requirements stated in the Site Specific Safety Instructions (SSSI) form or elsewhere in the Contract Documents.
- 1.01.5 shall ensure that its employees understand and comply with applicable safety and health programs, rules, and regulations.
- 1.01.6 will assign an individual to act as Safety Representative who will have the responsibility of resolving safety matters, and act as a liaison among Subcontractor, CM and the Owner. The Safety Representative must be a person who is capable of identifying existing and predictable hazards in surroundings that are unsanitary, hazardous or dangerous to employees, and has the authority to take prompt corrective measures to eliminate them. The Safety Representative must meet the standards for a Competent Person under applicable law when required (scaffolding, confined spaces, etc.). The Safety Representative must be on site full time. The Safety Representative or an alternate must attend periodic safety meetings as directed by CM. The safety representative must have completed the OSHA 30 hour Construction Training Course.
- 1.01.7 shall ensure that its site supervisors and/or Safety Representative attend a pre-construction meeting where planning for safe execution of the project will be addressed.
- 1.01.8 is fully responsible for all Hazardous Materials it creates or releases in connection with, or brings to, the Project. Subcontractor shall immediately report to CM any Hazardous Materials that it discovers or which are released at the Project.
- 1.01.9 Minimum training for on-site employees shall include basic safety orientation, task-specific safety instruction, weekly Tool Box Talks, and other periodic safety meetings. Subcontractor shall document all such training.
- 1.01.10 shall self-inspect its areas of control to assure compliance with the safety requirements.
- 1.01.11 All on-site employees of either Subcontractor] or its Subordinate Parties are required to report any unsafe act or condition and any work-related injuries or illness immediately to a supervisor. If the act or condition can be safely and easily corrected, the employee or supervisor should make the correction.
- 1.01.12 shall notify CM immediately of all injuries requiring clinical attention and all property damage potentially in excess of \$1,000.
- 1.01.13 shall have emergency procedures to deal with the immediate removal and treatment, if necessary, of any employee who may be injured or become ill. Subcontractor] shall keep on the Project site a first-aid kit supplied according to current regulations, and shall have on-site a person trained to administer first aid.
- 1.01.14 shall inform CM of the arrival of any federal or state inspector or compliance officer prior to touring the site. Any reports, citations, or other documents related to the inspection shall be provided promptly to Barton Malow.

- 1.01.15 shall have a written Substance Abuse Policy. The use or possession of illegal drugs or the use of alcohol while performing Work on the Project are strictly prohibited and will lead to immediate removal from the Project.
- 1.01.16 shall be responsible for payment of all safety-related citations, fines and/or claims arising out of or relating to its Work levied against the Owner, Architect, CM, or their employees or affiliates.
- 1.01.17 CM has the right to require that Subcontractor H submit monthly its hours worked and incident rates for the Project.
- 1.02 Additional CM Requirements
 - 1.02.1 Work crews shall conduct a Job Hazard Analysis (JHA,) discussion (i.e. Huddle) to plan for safe performance before beginning any work task. Subcontractor is required to prepare a written record of each JHA.
 - 1.02.2 All workers, management, and visitors shall wear approved hard hats while on site, outside the trailers. Cowboy-style hard hats are prohibited. Hardhats must not be removed to use welding shields. Welding shields must attach to hardhats or be hand held.
 - 1.02.3 Sleeved shirts (minimum of four inches), long pants, and durable work boots are required minimum clothing.
 - 1.02.4 Personal cell phones are not to be used on construction sites except to report an emergency or on approved break time. Use of business cell phones must not interfere with jobsite safety.
 - 1.02.5 Personal radios or music players are not permitted.
 - 1.02.6 All persons working at elevations of six feet or greater must have 100% continuous fall protection. Engineering controls are preferred, but personal fall arrest systems are also permissible. An exception is permitted for safe use of ladders up to 24 feet long.
 - 1.02.7 Subcontractor is responsible to repair or restore any barricade that it modifies or removes.
 - 1.02.8 Class II III (household) stepladders are prohibited; metal ladders are strongly discouraged.
 - 1.02.9 All scaffolds must be inspected daily and before each use for safety compliance. Scaffold inspection tags must be used. Scaffolds shall never be left in an unsafe condition and must be removed/disabled immediately if not to be used again.
 - 1.02.10 All persons operating cranes must be certified as crane operators by the National Commission on the Certification of Crane Operators (NCCCO), Crane Institute Certification (CIC) or Operating Engineers Certification Program (OCEP). Daily written crane inspection reports must be prepared by the operator and kept with the crane, available for inspection.
 - 1.02.11 Riding the headache ball is prohibited.
 - 1.02.12 All dozers, loaders, tractors and end loader backhoes must have functioning backup alarms.
 - 1.02.13 Keep equipment at least 15 feet from energized power lines.
 - 1.02.14 Electrical, pneumatic, and other energy systems that could be accidentally energized or started up while work is in process must be locked out (not merely tagged out).
 - 1.02.15 Only fire retardant materials may be used to build shanties or other temporary enclosures inside of buildings finished or under construction. Shanties shall be continually policed by their occupants to prevent the accumulation of waste or other combustibles.
 - 1.02.16 Engineering controls must be used to restrain silica dust per applicable law. Dry cutting without engineering controls is prohibited.
 - 1.02.17 The Contractor is required to design and implement a Stretch and Flex program for their employees. The purpose of the program is to gently condition the muscles and tendons for the workers before they engage in their duties in order to avoid injury. All contractors of any tier shall ensure that all employees participate in stretching exercises at the beginning of the work

day. It is recommended that you consult with your insurance carrier, licensed physician or other medical personnel to develop suitable stretches for your work crew.

- 1.02.18 The Contractor is required to implement a glove program. All workers performing construction work must wear appropriate protective work gloves. When not performing work gloves must be kept available for immediate use. Cut resistant work gloves are required for any operation with sharp material or cut potential.

2 Subcontractor's SAFETY SUBMITTALS

- 2.01 Subcontractors shall provide copies of the following written safety submittals to CM at the times indicated:

Submittal	Timing
Site-specific Safety Program, including substance abuse policy, hazard communication program, and Material Safety Data Sheets (MSDS)	Before on-site work begins
Tool Box Talk Reports	Weekly
Incident Reports (OSHA form 301 or equivalent)	Within 24 hours of incident
Pre Task/Daily Reports	Daily
Stretch and Flex program	Before on-site work begins

- 2.02 Barton Malow's receipt of the Safety Program or other submittals from Subcontractor does not constitute approval of the Program or submittal or permission to deviate from the requirements of the Contract Documents and applicable law.
- 2.03 Subcontractor will allow inspection of, and CM may request copies of, any and all safety-related documents and records in its possession relating to the Project.

3 CM RIGHTS

- 3.01 **Safety Hazard Notifications** may be issued to the Subcontractor when an unsafe act or condition is reported or observed. CM shall not be required to supervise the abatement or associated reprimand of unsafe acts or conditions within a Subcontractor's scope of work as this is solely the responsibility of Subcontractor. Nevertheless, CM has the right, but not the obligation, to require Subcontractor to cease or abate any unsafe practice or activity it notices, at Subcontractor's sole expense.
- 3.02 Contractor/Subcontractor's failure to comply with the contract safety requirements will be considered a default of the Agreement, and may result in remedial action including, but not limited to, withholding of payment of any sums due or termination.
- 3.03 CM's failure to require the submission of any form, documentation, or any other act required under this Section, 00810, of the Project Manual shall not relieve the Subcontractor from any of its safety obligations.
- 3.04 Nothing in this Section or in this Agreement makes CM responsible or liable for protecting Subcontractor's employees and other Subordinate Parties or assuring or providing for their safety or preventing accidents or property damage.
- 3.05 All requirements referenced in this Section 00810 are binding on Subcontractor and all of its Subordinate Parties, even where such requirements may exceed the standards of applicable law.

END OF SECTION 00810

SECTION 00840
HAZARDOUS MATERIALS

1. DEFINITION OF HAZARDOUS MATERIALS

- 1.1. A “Hazardous Material”, as used in this Project Manual means asbestos; asbestos containing material; lead (including lead-based paint); PCB; molds; any other chemical, material, or substance subject to regulation as a hazardous material, hazardous substance, toxic substance, or otherwise, under applicable federal, state, or local law; and any other chemical, material, or substance that may have adverse effects on human health or the environment.

2. AWARENESS OF HAZARDOUS MATERIALS

- 2.1. Each Contractor shall be constantly aware of the possible discovery of Hazardous Materials. Should Contractor encounter any Hazardous Material or suspected Hazardous Material, the Contractor shall immediately stop Work in the area affected and report the condition to CM.
- 2.2. If the Contractor encounters any Hazardous Material or suspected Hazardous Material, the Contractor agrees to immediately initiate the required procedures of the Environmental Protection Agency (EPA), and/or state or local agencies having jurisdiction to protect any and all persons exposed to the affected areas or adjacent areas affected thereby
- 2.3. Contractor is fully responsible for all Hazardous Materials it creates or releases in connection with, or brings to, the Project
- 2.4. Each Contractor shall be responsible to bind ALL of its personnel and its Subordinate Parties to the provisions in the contract documents related to hazardous materials and to instruct each employee of its own duty to report any and all suspected Hazardous Materials and to comply with all applicable laws.
- 2.5. ABSOLUTELY NO MATERIAL SHALL BE BROUGHT ON OR TO THE PROJECT SITE THAT DOES NOT HAVE A MANUFACTURER'S LABEL STATING CONTENTS.
- 2.6. The Contractor shall comply with all applicable federal and state laws, rules, ordinances and regulations regarding transportation, storage, spills, releases and disposal of Hazardous Materials.
- 2.7. No asbestos or asbestos-containing material will be brought to the jobsite or incorporated into the Work by Contractor or its Subordinate Parties.

END OF SECTION 00840

SECTION 00870 LABOR RELATIONS

1. PREVAILING WAGES

- 1.1. In any Agreement entered into pursuant to this advertisement, the Contractor shall comply with the provisions of the PREVAILING WAGE LAW.
 - 1.1.1. Prevailing Wage can be found in the folder structure.
 - 1.1.2. The Contractor will pay the latest prevailing wages and fringe benefits for all Work as required by State of Michigan/Public Act 166 dated 1965 as amended. The prevailing wage and fringe benefit rates are included immediately behind this Section
- 1.2. Additionally, **Contractor** is required to comply with all other provisions of the governing prevailing wage law, and shall ensure its Subordinate Parties' compliance therewith.
- 1.3. Allegations that individuals working on this Project are not receiving compensation required by law are considered seriously by the Owner and CM. In order to expedite the resolution of prevailing wage complaints related to this Project, the Owner and CM have determined that the Michigan Fair Contracting Center ("MFCC") is the organization best equipped to expedite the investigation of these matters. Any person or entity (the "Complainant") who reasonably believes that a particular contractor, subcontractor, supplier or other person or entity providing labor, materials, goods or services on this Project (each, an "Employer") is not paying prevailing wages as required by applicable law may ask the MFCC to determine whether proper rates are being paid either by completing and submitting to MFCC a request for assistance (the "RFA") or by contacting MFCC by telephone at (734) 462-2330 or (877) 611-6322. The RFA can be downloaded electronically at <http://mifcc.org/Brochures/KnowYourRights.pdf> and delivered to MFCC by facsimile to (734) 462-2318 or by mail to P.O. Box 530492, Livonia, Michigan 48153-0492.
- 1.4. Each and every Employer who is subject to an audit by MFCC pursuant to any RFA shall cooperate and comply fully with all requests, requirements and inquiries of MFCC. If, after investigation, MFCC determines that a Complainant's allegations are meritorious and the Complainant, MFCC and the Employer are unable to resolve the dispute following MFCC's determination, then, under the direction and with the assistance of MFCC, the Complainant shall file a Prevailing Wage Complaint (the "PWC") with the State of Michigan Department of Labor and Economic Growth Wage and Hour Division (the "Wage and Hour Division"). The PWC can be downloaded electronically at <http://mifcc.org/Brochures/PrevailingWageComplaint.pdf> and delivered by facsimile to (517) 322-6352 or by mail to 7150 Harris Drive, P.O. Box 30476, Lansing, Michigan 48909-7076.
 - 1.4.1. Upon commencement of the audit from MFCC, the Owner and/or CM reserves the right to hold all payments, pending the conclusion of the audit. If the Wage and Hour Division determines that the Employer has violated any applicable prevailing wage law, then the Owner and/or Construction Manager shall automatically be entitled to and will (a) withhold from such Employer any and all payments due and owing until the Employer remedies any and all violations cited by the Wage and Hour Division, and (b) backcharge the Employer for all costs actually incurred in MFCC's audit of the Employer.
 - 1.4.2. The Owner and/or CM shall keep a hard copy of these requirements posted at the Project site at all times.
- 1.5. The Contractor shall be financially responsible for the payment of prevailing wages by all Subordinate Parties that are subject to the prevailing wage law for Work on the Project.
- 1.6. If there is a dispute between any Contractor and the unions, the Contractor will be required to meet with CM and the Union involved to try and resolve the issue.
- 1.7. Because Work on this Project is covered by the Michigan Prevailing Wage Act ("Act"), the Contractor and its subcontractors and other Subordinate Parties that are governed by the prevailing wage law shall pay all hours at the prevailing wage rates at the applicable hourly rate; no Work performed by or on

behalf of the Contractor on this Project will be paid on a lump sum basis or a piece rate basis in violation of the Act.

- 1.8. The Contractor will pay its workers at wage and fringe benefit rates consistent with the Act regardless of whether the workers are classified as employees or independent contractors.
- 1.9. The Contractor shall not misclassify any work assignments, but shall in each and every case follow proper jurisdictional assignments in compliance with the Act.
- 1.10. The Contractor shall assure that any persons paid at apprentice rates under the Act are properly classified as apprentices by actual participation in a BAT certified program or as may otherwise be permitted by the Act.

END OF SECTION 00870

State of Michigan

WHPWRequest@michigan.gov

Official Request #: 749**Requestor:** Troy School District**Project Description:** Boulton Old Office Renovation**Project Number:** BID 9860**Oakland County****Official 2018 Commercial Prevailing Wage Rates for State Funded Projects****Issue Date:** 5/29/2018**Contract must be awarded by:** 8/27/2018**Page 1 of 31**

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

Asbestos & Lead Abatement Laborer

MLDC

9/7/2017

Asbestos & Lead Abatement Laborer

\$41.30

\$55.23

\$69.16

H H H X X X D Y

Apprentice Rates:

Trainee 600 hours + 1 calendar

\$30.22

\$33.28

\$41.73

comment

4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days

Asbestos, Lead and Mold Abatement, Hazardous Material Handler

AS207

3/27/2017

Asbestos, Lead and Mold Abatement, Hazardous Material Handler

\$40.75

\$54.25

\$67.75

H H H X X X D Y

comment

Four ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days

Boilermaker

BO169

2/17/2015

Boilermaker

\$54.70

\$81.08

\$107.45

H H H H H H D Y

Apprentice Rates:

1st 6 months

\$40.31

\$59.49

\$78.67

2nd 6 months

\$41.45

\$61.21

\$80.95

3rd 6 months

\$42.57

\$62.88

\$83.19

4th 6 months

\$43.69

\$64.57

\$85.43

5th 6 months

\$44.81

\$66.24

\$87.67

6th 6 months

\$48.63

\$72.50

\$96.36

7th 6 months

\$49.32

\$73.01

\$96.69

8th 6 months

\$51.58

\$76.40

\$101.21

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 2 of 31

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					

Bricklayer

BR1		10/15/2014				
Bricklayer, stone mason, pointer, cleaner, caulker			\$52.43	\$78.65	\$104.86	H H D H D D D D Y
Apprentice Rates:						
First 6 months			\$31.87	\$47.81	\$63.74	
2nd 6 months			\$33.72	\$50.60	\$67.44	
3rd 6 months			\$35.57	\$53.37	\$71.14	
4th 6 months			\$37.42	\$56.14	\$74.84	
5th 6 months			\$39.27	\$58.92	\$78.54	
6th 6 months			\$41.12	\$61.70	\$82.24	
7th 6 months			\$42.97	\$64.46	\$85.94	
8th 6 months			\$44.82	\$67.24	\$89.64	

comment make up day allowed
 Saturday for 5 day 8 hour week
 Friday for 4 day 10 hour week
 Four 10 hour days allowed M-TH

Carpenter

CA 687 D		7/5/2017				
Diver			\$67.26	\$87.51	\$107.76	X X H X X H H D Y
<i>comment make up day allowed</i>						
Saturday, Four 10s allowed M-Sat; double time due when over 12 hours worked per day						

CA 687 DT		7/5/2017				
Diver Tender			\$57.74	\$73.67	\$89.60	X X H X X H H D Y
<i>comment make up day allowed</i>						
Saturday						

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulan Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 3 of 31

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					

CA1045		7/5/2017				
Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)			\$51.94	\$73.28	\$94.62	X X H X X X D Y

Apprentice Rates:

1st 6 months	\$25.87	\$34.92	\$43.98
2nd 6 months	\$29.86	\$40.92	\$51.96
3rd 6 months	\$32.07	\$44.23	\$56.38
4th 6 months	\$34.27	\$47.52	\$60.78
5th 6 months	\$36.47	\$50.83	\$65.18
6th 6 months	\$38.69	\$54.16	\$69.62
7th 6 months	\$40.90	\$57.48	\$74.04
8th 6 months	\$43.10	\$60.77	\$78.44

CA687Z1		7/5/2017				
Carpenter			\$58.62	\$74.55	\$90.48	X X H X X H D Y

Apprentice Rates:

1st year	\$35.89	\$44.65	\$53.41
3rd 6 months	\$38.43	\$47.99	\$57.55
4th 6 months	\$40.94	\$51.29	\$61.65
5th 6 months	\$43.47	\$54.62	\$65.77
6th 6 months	\$46.01	\$57.96	\$69.91
7th 6 months	\$48.52	\$61.27	\$74.01
8th 6 months	\$51.04	\$64.58	\$78.12

comment make up day allowed
Saturdays, four 10s allowed Mon-Sat; double time due when over 12 hours worked per day

CA687Z1P		7/5/2017				
Piledriver			\$58.62	\$74.55	\$90.48	X X H X X H D Y

comment make up day allowed
Saturday, Four 10s allowed Monday-Saturday; double time due when over 12 hours worked per day

Official Request #: 749
Requestor: Troy School District
Project Description: Boulton Old Office Renovation
Project Number: BID 9860
County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 4 of 31

Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			

Cement Mason

BR1CM		11/3/2017							
Cement Mason			\$50.05	\$71.17	\$92.28	X X H H H H H D N			
Apprentice Rates:									
	1st 6 months		\$29.13	\$39.45	\$49.77				
	2nd 6 months		\$31.20	\$42.54	\$53.87				
	3rd 6 months		\$35.31	\$48.67	\$62.01				
	4th 6 months		\$39.46	\$54.85	\$70.23				
	5th 6 months		\$41.52	\$57.91	\$74.30				
	6th 6 months		\$45.67	\$64.10	\$82.52				

CE514		8/17/2016							
Cement Mason			\$48.55	\$68.40	\$88.24	H H D H H H H D N			
Apprentice Rates:									
	1st 6 months		\$28.17	\$38.03	\$47.88				
	2nd 6 months		\$30.14	\$40.98	\$51.82				
	3rd 6 months		\$34.09	\$46.91	\$59.72				
	4th 6 months		\$38.03	\$52.82	\$67.60				
	5th 6 months		\$39.99	\$55.75	\$71.52				
	6th 6 months		\$43.94	\$61.68	\$79.42				

Drywall

PT-22-D		8/25/2016							
Drywall Taper			\$45.91	\$59.74	\$73.56	H H D H D D D D Y			
Apprentice Rates:									
	1st 3 months		\$32.08	\$38.99	\$45.90				
	2nd 3 months		\$34.85	\$43.14	\$51.44				
	2nd 6 months		\$37.62	\$47.30	\$56.98				
	3rd 6 months		\$40.38	\$51.44	\$62.50				
	4th 6 months		\$41.76	\$53.51	\$65.26				

comment make up day allowed

Four 10s allowed Monday-Thursday, Friday make-up day for bad weather or holidays

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 5 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Electrician

EC-58-IW			7/5/2017				
Journeyman Electrician - Inside Wireman				\$64.02	\$84.47	\$104.91	H H H H H H H D N
Apprentice Rates:							
	0-1000 hours			\$42.08	\$51.55	\$61.03	
	1000-2000 hours			\$44.07	\$54.54	\$65.01	
	2000-3500 hours			\$46.07	\$57.54	\$69.01	
	3500-5000 hours			\$48.07	\$60.54	\$73.00	
	5000-6500 hours			\$50.06	\$63.52	\$76.98	
	6500-8000 hours			\$54.05	\$69.52	\$84.97	

EC-58-SC			7/5/2017				
Sound and Communication Installer				\$40.35	\$54.45	\$68.55	H H H H H H H D N
Apprentice Rates:							
	Period 1			\$26.75	\$34.05	\$41.35	
	Period 2			\$28.11	\$36.09	\$44.07	
	Period 3			\$29.47	\$38.13	\$46.79	
	Period 4			\$30.83	\$40.17	\$49.51	
	Period 5			\$32.19	\$42.21	\$52.23	
	Period 6			\$33.55	\$44.25	\$54.95	

Elevator Constructor

EL 36			8/7/2007				
Elevator Constructor Mechanic				\$56.46		\$94.99	D D D D D D D Y
Apprentice Rates:							
	1st Year Apprentice			\$37.74		\$58.93	
	2nd Year Apprentice			\$41.90		\$66.94	
	3rd Year Apprentice			\$43.98		\$70.95	
	4th Year Apprentice			\$48.14		\$78.96	

make up day allowed

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 6 of 31

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					

Glazier

GL-357		8/24/2016				
Glazier			\$49.50	\$65.23	\$80.95	H H H H H H H D Y
Apprentice Rates:						
	1st 6 months		\$33.77	\$41.63	\$49.49	
	2nd 6 months		\$35.35	\$44.00	\$52.65	
	3rd 6 months		\$38.49	\$48.71	\$58.93	
	4th 6 months		\$40.06	\$51.07	\$62.07	
	5th 6 months		\$41.64	\$53.43	\$65.23	
	6th 6 months		\$43.21	\$55.79	\$68.37	
	7th 6 months		\$44.78	\$58.15	\$71.51	
	8th 6 months		\$47.93	\$62.87	\$77.81	

comment

If a four 10 hour day workweek is scheduled, four 10s must be consecutive,

Heat and Frost Insulator

AS25S		3/31/2017				
Spray Insulation -	Qualified Senior Sprayer, application of all products		\$29.04	\$42.35		X X X H H H H H N

Heat and Frost Insulator and Asbestos Worker

AS25		6/3/2016				
Heat and Frost Insulators and Asbestos Workers			\$62.65	\$78.41	\$94.16	H H H H H H H D Y
Apprentice Rates:						
	1st Year		\$46.90	\$54.78	\$62.66	
	2nd Year		\$50.05	\$59.50	\$68.96	
	3rd Year		\$53.20	\$64.23	\$75.26	
	4th Year		\$56.35	\$68.96	\$81.56	

comment

Four 10s must be worked for a minimum of 2 consecutive weeks.
OVERTIME is different on a four 10 week. OT is 2x for hours beyond 10. All hours on fifth day, M-F require time and one half. Sat first 8 hours, 1.5, all hours after 8 require double time.

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 7 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Ironworker

IR-25-F1			2/1/2017				
Fence, Sound Barrier & Guardrail erection/installation and Exterior Signage work				\$35.95	\$48.05	\$60.15	X X H X X X H D Y

Apprentice Rates:

60% Level	\$25.39	\$32.65	\$39.91
65% Level	\$26.71	\$34.58	\$42.44
70% Level	\$28.03	\$36.51	\$44.98
75% Level	\$29.35	\$38.42	\$47.50
80% Level	\$30.67	\$40.35	\$50.03
85% Level	\$31.99	\$42.28	\$52.56

comment

Four ten hour work days may be worked during Monday-Saturday.

IR-25-GZ2			7/5/2017				
Siding, Glazing, Curtain Wall				\$48.13	\$59.92	\$71.70	X X H H H H D D Y

Apprentice Rates:

Level 1	\$31.20	\$37.93	\$44.65
Level 2	\$33.31	\$40.67	\$48.02
Level 3	\$35.42	\$43.41	\$51.39
Level 4	\$37.54	\$46.16	\$54.77
Level 5	\$39.66	\$48.92	\$58.17
Level 6	\$41.78	\$51.67	\$61.55

comment make up day allowed

Friday, 4 tens may be worked Monday thru Thursday @ straight time.

IR-25-PE-Z1			4/30/2018				
Pre-engineered Metal Work				\$48.69	\$59.70	\$70.70	X X H X X X X D Y

Apprentice Rates:

Probation 1 Year	\$27.43	\$32.86	\$38.30
1st Level	\$29.56	\$35.75	\$41.95
2nd Level	\$28.56	\$34.25	\$39.95
3rd Level	\$31.68	\$38.63	\$45.57
4th Level	\$33.81	\$41.52	\$49.22
5th Level	\$35.93	\$44.38	\$52.84

comment make up day allowed

4 tens allowed M-Th with Saturday make up day

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Page 8 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
IR-25-RF			7/5/2017				
	Reinforced Iron Work			\$57.30	\$85.66	\$114.02	H H D H D D D D N
		Apprentice Rates:					
		Level 1		\$40.32	\$59.89	\$79.46	
		Level 2		\$42.68	\$63.43	\$84.18	
		Level 3		\$45.22	\$67.24	\$89.26	
		Level 4		\$47.75	\$71.04	\$94.32	
		Level 5		\$50.29	\$74.84	\$99.40	
		Level 6		\$50.29	\$74.84	\$99.40	
		<i>make up day allowed</i>					
IR-25-RIG			7/5/2017				
	Rigging Work			\$63.51	\$95.00	\$126.49	H H H H H H H D N
		Apprentice Rates:					
		Level 1 & 2		\$38.22	\$56.16	\$74.85	
		Level 3		\$41.05	\$61.54	\$82.01	
		Level 4		\$43.87	\$65.76	\$87.65	
		Level 5		\$46.70	\$70.01	\$93.31	
		Level 6		\$49.53	\$74.25	\$98.97	
IR-25-SD			7/5/2017				
	Decking			\$55.47	\$82.87	\$110.26	X X H H H H D D Y
		<i>comment make up day allowed</i>					
		4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.					
IR-25-STR			7/5/2017				
	Structural, ornamental, welder and pre-cast			\$63.64	\$95.12	\$126.60	H H H H H H H D D Y
		Apprentice Rates:					
		Levels 1 & 2		\$38.22	\$56.99	\$75.75	
		Level 3		\$41.05	\$61.24	\$81.41	
		Level 4		\$43.87	\$65.46	\$87.05	
		Level 5		\$46.70	\$69.71	\$92.71	
		Level 6		\$49.53	\$73.95	\$98.37	
		Level 7		\$52.35	\$78.18	\$104.01	
		Level 8		\$55.18	\$82.43	\$109.67	

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Issue Date: 5/29/2018

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Page 9 of 31

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comment make up day allowed

4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.

IR-25-STR-D

7/5/2017

Industrial Door erection & construction

\$43.74 \$65.27 \$86.80 H H H H H H D D Y

comment make up day allowed

Friday for bad weather when 4 tens scheduled for M-Th. If holiday celebrated on M, 4 tens may be worked T-F. Work in excess of 12 hours per day must be paid @ double time.

Laborer

L1076-A-A

5/31/2017

Construction laborer, demolition laborer, mason tender, carpenter tender, drywall handler, concrete laborer, concrete chute and concrete bucket handler, and cement finisher tender, wall and ceiling material handler, plasterer tender, mortar mixer and plastering machine operator

\$44.76 \$63.69 \$82.61 H H H H H H H D Y

Apprentice Rates:

0-1,000 work hours	\$38.67	\$54.55	\$70.43
1,001-2,000 work hours	\$39.89	\$56.38	\$72.87
2,001-3,000 work hours	\$41.11	\$58.21	\$75.31
3,001-4,000 work hours	\$43.54	\$61.86	\$80.17

comment make up day allowed

If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.

L1076-A-B

5/31/2017

Signal man (on sewer and caisson work); air, electric or gasoline tool operator (including concrete vibrator operator, acetylene torch and air hammer operator); Scaffold builder; Caisson worker

\$45.04 \$64.11 \$83.17 H H H H H H H D Y

comment make up day allowed

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Page 10 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
L1076-A-C			5/31/2017				
	Lansing burner, blaster and powder man; air, electric or gasoline tool operator (Blast Furnace work or Battery Work)			\$45.55	\$64.87	\$84.19	H H H H H H H D Y
	<i>comment</i>	<i>make up day allowed</i>					
	If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
L1076-A-D			5/31/2017				
	Furnace battery heater tenders, burning bar and oxy-acetylene gun			\$45.28	\$62.67	\$80.10	H H H H H H H D Y
	<i>comment</i>	<i>make up day allowed</i>					
	If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
L1076-A-E			6/2/2017				
	Cleaner/sweeper laborer, furniture laborer - unloading of furniture to the point of installation, the setting in place or relocation of furniture.			\$39.31	\$55.51	\$71.71	H H H H H H H D Y
	<i>comment</i>	<i>make up day allowed</i>					
	If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
L1076-A-F			6/2/2017				
	Expediter man, top and/or bottom man (Blast Furnace work or Battery Work)			\$46.07	\$65.65	\$85.23	H H H H H H H D Y
	<i>comment</i>	<i>make up day allowed</i>					
	If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
LPT-1			6/17/2016				
	Plasterer Tender, Plastering Machine Operator			\$44.35	\$63.10	\$81.85	H H H H H H H D Y
	Apprentice Rates:						
	1,001 - 2,000 hours			\$39.53	\$55.87	\$72.21	
	2,001 - 3,000 hours			\$40.73	\$57.67	\$74.61	
	3,001 - 4,000 hours			\$43.15	\$61.30	\$79.45	

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Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 11 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
----------------	------	-------------	--------------	-----------------	-----------------	-------------	--------------------

comment make up day allowed
f conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.

Laborer - Hazardous

LHAZ-Z2-A 11/13/2017
Class A Laborer - performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regulations; or a laborer performing work in conjunction with the removal, handling, or containment of hazardous waste substances when used of personal protective equipment level "D" is required.

Apprentice Rates:

0-1,000 work hours	\$38.67	\$54.55	\$70.43
1,001-2,000 work hours	\$39.89	\$56.38	\$72.87
2,001-3,000 work hours	\$41.11	\$58.21	\$75.31
3,001-4,000 work hours	\$43.54	\$61.86	\$80.17

comment make up day allowed
4 10s allowed M-Th or T-F; inclement weather makeup day Friday

LHAZ-Z2-B 11/13/2017
Class B Laborer - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.

Apprentice Rates:

0-1,000 work hours	\$39.42	\$55.68	\$71.93
1,001-2,000 work hours	\$40.69	\$57.58	\$74.47
2,001-3,000 work hours	\$41.96	\$59.48	\$77.01
3,001-4,000 work hours	\$44.49	\$63.28	\$82.07

comment make up day allowed
4 10s allowed M-Th or T-F; inclement weather makeup day Friday

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Page 12 of 31

Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			

Laborer Underground - Open Cut, Class I

LAUC-Z1-1		9/7/2017							
Construction Laborer			\$38.92	\$49.96	\$60.99	X X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$34.04	\$42.64	\$51.23				
	1,001-2,000 work hours		\$35.02	\$44.11	\$53.19				
	2,001-3,000 work hours		\$35.99	\$45.56	\$55.13				
	3,001-4,000 work hours		\$37.94	\$48.49	\$59.03				

Laborer Underground - Open Cut, Class II

LAUC-Z1-2		9/7/2017							
Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector.			\$39.03	\$50.12	\$61.21	X X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$34.12	\$42.76	\$51.39				
	1,001-2,000 work hours		\$35.10	\$44.23	\$53.35				
	2,001-3,000 work hours		\$36.09	\$45.72	\$55.33				
	3,001-4,000 work hours		\$38.05	\$48.66	\$59.25				

Laborer Underground - Open Cut, Class III

LAUC-Z1-3		9/7/2017							
Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger man, and directional boring man.			\$39.08	\$50.20	\$61.31	X X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$34.16	\$42.82	\$51.47				
	1,001-2,000 work hours		\$35.14	\$44.29	\$53.43				
	2,001-3,000 work hours		\$36.13	\$45.78	\$55.41				
	3,001-4,000 work hours		\$38.10	\$48.73	\$59.35				

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Page 13 of 31

Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			

Laborer Underground - Open Cut, Class IV

LAUC-Z1-4		9/7/2017							
Trench or excavating grade man.			\$39.16	\$50.32	\$61.47	X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$34.22	\$42.91	\$51.59				
	1,001-2,000 work hours		\$35.21	\$44.40	\$53.57				
	2,001-3,000 work hours		\$36.20	\$45.88	\$55.55				
	3,001-4,000 work hours		\$38.17	\$48.84	\$59.49				

Laborer Underground - Open Cut, Class V

LAUC-Z1-5		9/7/2017							
Pipe Layer			\$39.22	\$50.41	\$61.59	X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$34.26	\$42.97	\$51.67				
	1,001-2,000 work hours		\$35.26	\$44.47	\$53.67				
	2,001-3,000 work hours		\$36.25	\$45.96	\$55.65				
	3,001-4,000 work hours		\$38.23	\$48.92	\$59.61				

Laborer Underground - Open Cut, Class VI

LAUC-Z1-6		9/7/2017							
Grouting man, top man assistant, audio visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances.			\$36.67	\$46.59	\$56.49	X X X X X X D Y			
Apprentice Rates:									
	0-1,000 work hours		\$32.35	\$40.10	\$47.85				
	1,001-2,000 work hours		\$33.22	\$41.41	\$49.59				
	2,001-3,000 work hours		\$34.08	\$42.70	\$51.31				
	3,001-4,000 work hours		\$35.81	\$45.30	\$54.77				

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Page 14 of 31

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Name	Description					

Laborer Underground - Open Cut, Class VII

LAUC-Z1-7	9/7/2017					
Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.		\$33.29	\$41.52	\$49.73	X X X X X X X D Y	

Apprentice Rates:

0-1,000 work hours	\$29.82	\$36.31	\$42.79
1,001-2,000 work hours	\$30.51	\$37.34	\$44.17
2,001-3,000 work hours	\$31.21	\$38.40	\$45.57
3,001-4,000 work hours	\$32.60	\$40.48	\$48.35

Laborer Underground - Tunnel, Shaft & Caisson

LAUCT-Z1-1	9/7/2017					
Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.		\$39.07	\$50.19	\$61.29	X X X X X X X D Y	

Apprentice Rates:

0-1,000 work hours	\$34.15	\$42.80	\$51.45
1,001-2,000 work hours	\$35.14	\$44.29	\$53.43
2,001-3,000 work hours	\$36.12	\$45.76	\$55.39
3,001-4,000 work hours	\$38.09	\$48.72	\$59.33

LAUCT-Z1-2	9/7/2017					
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder.		\$39.18	\$50.35	\$61.51	X X X X X X X D Y	

Apprentice Rates:

0-1,000 work hours	\$34.24	\$42.94	\$51.63
1,001-2,000 work hours	\$35.22	\$44.41	\$53.59
2,001-3,000 work hours	\$36.21	\$45.90	\$55.57
3,001-4,000 work hours	\$38.19	\$48.86	\$59.53

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Page 15 of 31

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LAUCT-Z1-3			9/7/2017				
		Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, concrete shoveler, conveyor man, floor man, gasoline and electric tool operator, gunnite man, grout operator, welder, heading dinky man, inside lock tender, pea gravel operator, pump man, outside lock tender, scaffold man, top signal man, switch man, track man, tugger man, utility man, vibrator man, winch operator, pipe jacking man, wagon drill and air track operator and concrete saw operator (under 40 h.p.).		\$39.24	\$50.44	\$61.63	X X X X X X D Y

Apprentice Rates:

0-1,000 work hours	\$34.28	\$43.00	\$51.71
1,001-2,000 work hours	\$35.27	\$44.48	\$53.69
2,001-3,000 work hours	\$36.26	\$45.97	\$55.67
3,001-4,000 work hours	\$38.25	\$48.96	\$59.65

LAUCT-Z1-4			9/7/2017				
		Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.		\$39.42	\$50.71	\$61.99	X X X X X X D Y

Apprentice Rates:

0-1,000 work hours	\$34.42	\$43.21	\$51.99
1,001-2,000 work hours	\$35.42	\$44.71	\$53.99
2,001-3,000 work hours	\$36.42	\$46.21	\$55.99
3,001-4,000 work hours	\$38.42	\$49.21	\$59.99

LAUCT-Z1-5			9/7/2017				
		Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)		\$39.67	\$51.08	\$62.49	X X X X X X D Y

Apprentice Rates:

0-1,000 work hours	\$34.60	\$43.48	\$52.35
1,001-2,000 work hours	\$35.62	\$45.01	\$54.39
2,001-3,000 work hours	\$36.63	\$46.52	\$56.41
3,001-4,000 work hours	\$38.66	\$49.57	\$60.47

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Page 16 of 31

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----------------	------	-------------	--------------	-----------------	-----------------	-------------	--------------------

LAUCT-Z1-6			9/7/2017				
	Class VI - Dynamite man and powder man.			\$40.00	\$51.58	\$63.15	X X X X X X D Y

Apprentice Rates:

0-1,000 work hours	\$34.85	\$43.86	\$52.85
1,001-2,000 work hours	\$35.88	\$45.40	\$54.91
2,001-3,000 work hours	\$36.91	\$46.94	\$56.97
3,001-4,000 work hours	\$38.97	\$50.04	\$61.09

LAUCT-Z1-7			9/7/2017				
	Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.			\$33.28	\$41.50	\$49.71	X X X X X X D Y

Apprentice Rates:

0-1,000 work hours	\$29.81	\$36.30	\$42.77
1,001-2,000 work hours	\$30.50	\$37.33	\$44.15
2,001-3,000 work hours	\$31.20	\$38.38	\$45.55
3,001-4,000 work hours	\$32.59	\$40.46	\$48.33

Landscape Laborer

LLAN-Z1-A			10/13/2015				
	Landscape Specialist: includes air, gas, and diesel equipment operator, skidsteer (or equivalent), lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintenance of landscape projects occurs.			\$28.98	\$40.04	\$51.09	X X H X X X H D Y

comment

Sundays paid at time & one half. Holidays paid at double time.

LLAN-Z1-B			10/13/2015				
	Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, material mover, truck driver when seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs			\$24.76	\$33.71	\$42.65	X X H X X X H D Y

comment

Sundays paid at time & one half. Holidays paid at double time.

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 17 of 31

Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			

Marble Finisher

BR1-MF		10/20/2014							
Marble Finisher			\$43.48	\$54.29	\$65.10	H H D H D D D D Y			
Apprentice Rates:									
	Level 1		\$19.04	\$25.12	\$31.20				
	Level 2		\$20.24	\$26.92	\$33.60				
	Level 3		\$27.01	\$33.96	\$40.90				
	Level 4		\$28.47	\$36.14	\$43.82				
	Level 5		\$29.99	\$37.84	\$45.70				
	Level 6		\$31.61	\$39.86	\$48.10				
	Level 7		\$33.30	\$41.59	\$49.87				
	Level 8		\$34.79	\$43.48	\$52.17				

comment

A four ten workweek may be worked Monday thru Thursday or Tuesday thru

Marble Mason

BR1-MM		10/17/2014							
Marble Mason			\$50.29	\$64.51	\$78.72	H H D H D D D D Y			
Apprentice Rates:									
	Level 1		\$25.14	\$32.65	\$40.15				
	Level 2		\$28.20	\$36.49	\$44.78				
	Level 3		\$33.41	\$41.97	\$50.53				
	Level 4		\$36.15	\$45.66	\$55.17				
	Level 5		\$38.42	\$48.17	\$57.92				
	Level 6		\$42.07	\$53.56	\$65.05				
	Level 7		\$42.74	\$54.38	\$66.02				
	Level 8		\$43.67	\$55.78	\$67.88				

comment

A four ten workweek may be worked Monday thru Thursday or Tuesday thru

Operating Engineer

EN-324-A120		6/7/2017							
Crane with boom & jib or leads 120' or longer			\$59.36	\$77.25	\$95.13	X X H H D D D D Y			
<i>comment</i>									
Double time after 12 hours M-F									

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County: Oakland

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

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Page 18 of 31

Classification Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
EN-324-A140		6/7/2017				
	Crane with boom & jib or leads 140' or longer		\$60.18	\$78.48	\$96.77	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-A220		6/7/2017				
	Crane with boom & jib or leads 220' or longer		\$60.48	\$78.93	\$97.37	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-A300		6/7/2017				
	Crane with boom & jib or leads 300' or longer		\$61.98	\$81.18	\$100.37	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-A400		6/7/2017				
	Crane with boom & jib or leads 400' or longer		\$63.48	\$83.43	\$103.37	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-CW		6/7/2017				
	Compressor or welding machine		\$48.51	\$60.97	\$73.43	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-FL		6/7/2017				
	Forklift, lull, extend-a-boom forklift		\$55.82	\$71.94	\$88.05	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-FO		6/7/2017				
	Fireman or oiler		\$47.48	\$59.43	\$71.37	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					
EN-324-RC		6/7/2017				
	Regular crane, job mechanic, concrete pump with boom		\$58.50	\$75.96	\$93.41	X X H H D D D Y
	<i>comment</i> Work in excess of 12 hours per day M-F shall be paid at double time.					

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule
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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 19 of 31

Classification Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
EN-324-RE		6/7/2017				
	Regular engineer, hydro-excavator, remote controlled concrete breaker		\$57.53	\$74.50	\$91.47	X X H H D D D D Y
	Apprentice Rates:					
	0-999 hours		\$46.53	\$58.76	\$70.97	
	1,000-1,999 hours		\$48.28	\$61.38	\$74.47	
	2,000-2,999 hours		\$50.02	\$63.99	\$77.95	
	3,000-3,999 hours		\$51.77	\$66.62	\$81.45	
	4,000-4,999 hours		\$53.51	\$69.22	\$84.93	
	5,000-5,999 hours		\$55.26	\$71.85	\$88.43	

comment

Work in excess of 12 hours per day M-F shall be paid at double time.

Operating Engineer - Marine Construction

GLF D		4/2/2014				
	Diver/Wet Tender/Tender/Rov Pilot/Rov Tender		\$52.80	\$79.20	\$105.60	H H H H H H D N
GLF-1		1/23/2017				
	Diver/Wet Tender, Engineer (hydraulic dredge)		\$72.32	\$93.82	\$115.32	X X H H H H D Y
	<i>comment make up day allowed</i>					
	Holiday pay = 2.5 times the straight hourly rate					
	<u>Subdivision of county</u> all Great Lakes, islands therein, & connecting & tributary waters					
GLF-2		1/23/2017				
	Crane/Backhoe Operator, 70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender		\$70.82	\$91.57	\$112.32	X X H H H H D Y
	<i>comment make up day allowed</i>					
	Holiday pay = 2.5 times the straight hourly rate					
	<u>Subdivision of county</u> All Great Lakes, islands therein, & connecting & tributary waters					
GLF-2B		1/23/2017				
	Friction, Lattice Boom or Crane License Certification		\$72.32	\$93.82	\$115.32	X X H H H H D Y
	<i>comment make up day allowed</i>					
	Holiday pay = 2.5 times the straight hourly rate					
	<u>Subdivision of county</u> All Great Lakes, islands, therein, & connecting & tributary waters					

Official Request #: 749

Requestor: Troy School District

Project Description: Boulan Old Office Renovation

Project Number: BID 9860

County: Statewide

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 20 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
GLF-3			1/23/2017				
		Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs or more), Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery		\$66.27	\$84.75	\$103.22	X X H H H H H D Y
		<i>comment make up day allowed</i> Holiday pay = 2.5 times the straight hourly rate					
		<u>Subdivision of county</u> All Great Lakes, islands therein, & connecting & tributary waters					
GLF-4			1/23/2017				
		Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator		\$60.07	\$75.45	\$90.82	X X H H H H H D Y
		<i>comment make up day allowed</i> Holiday pay = 2.5 times the straight hourly rate					
		<u>Subdivision of county</u> All Great Lakes, islands therein, & connecting & tributary waters					
Operating Engineer Steel Work							
EN-324-EF			6/8/2017				
		Forklift, 1 Drum Hoist		\$60.41	\$79.00	\$97.58	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW120			6/7/2017				
		Crane w/ 120' boom or longer		\$63.11	\$83.05	\$102.98	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW120-O			6/7/2017				
		Crane w/ 120' boom or longer w/ Oiler		\$64.11	\$84.55	\$104.98	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW140			6/7/2017				
		Crane w/ 140' boom or longer		\$64.29	\$84.82	\$105.34	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW140-O			6/7/2017				
		Crane w/ 140' boom or longer W/ Oiler		\$65.29	\$86.32	\$107.34	H H D H H H D D Y

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County Oakland

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 21 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW220			6/7/2017				
	Boom & Jib 220' or longer			\$64.56	\$85.22	\$105.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW220-O			6/7/2017				
	Crane w/ 220' boom or longer w/ Oiler			\$65.56	\$86.72	\$107.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW300			6/7/2017				
	Boom & Jib 300' or longer			\$66.06	\$87.47	\$108.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW300-O			6/7/2017				
	Crane w/ 300' boom or longer w/ Oiler			\$67.06	\$88.97	\$110.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW400			6/7/2017				
	Boom & Jib 400' or longer			\$67.56	\$89.72	\$111.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SW400-O			6/7/2017				
	Crane w/ 400' boom or longer w/ Oiler			\$68.56	\$91.22	\$113.88	H H D H H H D D Y
		<i>comment make up day allowed</i> 4 10s allowed M-Th with Friday makeup day because of bad weather					

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County Oakland

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 22 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
EN-324-SWCO			6/7/2017				
	Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator			\$62.75	\$82.51	\$102.26	H H D H H H D D Y
		Apprentice Rates:					
		0-999 hours		\$49.40	\$63.26	\$77.11	
		1,000-1,999 hours		\$51.38	\$66.23	\$81.07	
		2,000-2,999 hours		\$53.35	\$69.19	\$85.01	
		3,000-3,999 hours		\$55.33	\$72.16	\$88.97	
		4,000-4,999 hours		\$57.30	\$75.11	\$92.91	
		5,000 hours		\$59.28	\$78.08	\$96.87	
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWCO-O			6/7/2017				
	Crane Operator w/ Oiler			\$63.75	\$84.01	\$104.26	H H D H H H D D Y
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWCW			6/7/2017				
	Compressor or Welder Operator			\$55.30	\$71.33	\$87.36	H H D H H H D D Y
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWHO			6/7/2017				
	Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe			\$62.11	\$81.55	\$100.98	H H D H H H D D Y
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWO			6/7/2017				
	Oiler			\$53.89	\$69.22	\$84.54	H H D H H H D D Y
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWTD50			6/7/2017				
	Tower Crane & Derrick where work is 50' or more			\$63.84	\$84.14	\$104.44	H H D H H H D D Y
	<i>comment</i>	<i>make up day allowed</i>					
		4 10s allowed M-Th with Friday makeup day because of bad weather					
EN-324-SWTD50-O			6/7/2017				
	Tower Crane & Derrick 50' or more w/ Oiler			\$64.84	\$85.64	\$106.44	H H D H H H D D Y

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Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 23 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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comment make up day allowed
4 10s allowed M-Th with Friday makeup day because of bad weather

Operating Engineer Underground

EN-324A1-UC1	9/7/2017						
Class I Equipment			\$55.54	\$71.56	\$87.57	H H H H H H H D Y	
Apprentice Rates:							
0-999 hours			\$44.09	\$55.30	\$66.52		
1,000-1,999 hours			\$45.68	\$57.70	\$69.70		
2,000-2,999 hours			\$47.28	\$60.09	\$72.90		
3,000-3,999 hours			\$48.88	\$62.49	\$76.10		
4,000-4,999 hours			\$50.49	\$64.91	\$79.32		
5,000-5,999 hours			\$52.09	\$67.30	\$82.52		

EN-324A1-UC2	9/7/2017						
Class II Equipment			\$50.81	\$64.46	\$78.11	H H H H H H H D Y	

EN-324A1-UC3	9/7/2017						
Class III Equipment			\$50.08	\$63.37	\$76.65	H H H H H H H D Y	

EN-324A1-UC4	9/7/2017						
Class IV Equipment			\$49.51	\$62.52	\$75.51	H H H H H H H D Y	

EN-324A1-UMM	9/7/2017						
Master Mechanic			\$55.79	\$71.93	\$88.07	H H H H H H H D Y	

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 24 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Painter

PT-22-P	Painter		10/3/2017	\$44.32	\$57.60	\$70.88	H H D H D D D D Y
Apprentice Rates:							
		Year 1		\$31.04	\$37.68	\$44.32	
		Year 2		\$33.70	\$41.67	\$49.64	
		Year 3		\$36.35	\$45.64	\$54.94	
		Year 4		\$40.34	\$51.63	\$62.92	

comment make up day allowed

Four 10s allowed Monday-Thursday with Friday makeup day if job down due to weather, holiday or other conditions beyond the control of the employer, 8 hours of repaint work performed on Sunday shall be paid time & one half

Painter - Sign Display

PT-591			12/12/2017	\$19.94	\$29.93	\$39.88	X X X X X X D N
The trade jurisdiction consists of painting and other related surface finishing operations; lettering, and all operations so related; pictorial and graphic art work; screen process procedures; application of photographs, translates, refinished surface-type materials used in lieu of painted methods, display graphics; adhesive backed lettering and art work; sign hanging, sign installation, erection and construction; bulletin board construction; plastic sign fabrication; advertising displays and exhibits; and the preparing of surfaces for finishing of the same to include but not limited to application of filler of seams, grooves, nail and/or screw holes; and such area practices pertaining to the sign and display industry.							

Pipe and Manhole Rehab

TM247	General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant		4/17/2015	\$28.20	\$38.20		H H H H H H H H N
TM247-2	Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment		4/17/2015	\$32.70	\$44.95		H H H H H H H H N

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 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Statewide

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 25 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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TM247-3			4/17/2015				
	CCTV Technician/Combo Unit Operator:	unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work		\$31.45	\$43.07		H H H H H H H N

TM247-4			4/17/2015				
	Boiler Operator:	unit driver and operator of steam/water heater units and all ancillary equipment associated		\$33.20	\$45.70		H H H H H H H N

TM247-5			4/17/2015				
	Combo Unit driver & Jetter-Vac Operator			\$33.20	\$45.70		H H H H H H H N

TM247-6			4/17/2015				
	Pipe Bursting & Slip-lining Equipment Operator			\$34.20	\$47.20		H H H H H H H N

Pipefitter

PF-636			7/12/2016				
	Pipefitter, Steamfitter, Refrigeration & Air Conditioning Service			\$69.83	\$91.03	\$108.23	H H D H D D D Y
	Apprentice Rates:						
	1st & 2nd periods			\$29.93	\$38.28	\$45.28	
	3rd period			\$31.93	\$41.28	\$49.28	
	4th period			\$33.18	\$43.16	\$51.78	
	5th period			\$34.43	\$45.03	\$54.28	
	6th period			\$35.68	\$46.90	\$56.78	
	7th period			\$36.93	\$48.78	\$59.28	
	8th period			\$37.93	\$50.28	\$61.28	
	9th period			\$38.93	\$51.78	\$63.28	
	10th period			\$40.36	\$53.92	\$66.14	

comment

Four 10s allowed during the week preceding, following and/or the week of a

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 County: Oakland

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 26 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Plasterer

BR1P	Plasterer		11/1/2012	\$45.04	\$67.56	\$90.08	H H H H H H H D N
Apprentice Rates:							
	1st 6 months			\$32.11	\$48.17	\$64.22	
	2nd 6 months			\$33.40	\$50.10	\$66.80	
	3rd 6 months			\$34.69	\$52.04	\$69.38	
	4th 6 months			\$37.28	\$55.92	\$74.56	
	5th 6 months			\$39.87	\$59.81	\$79.74	
	6th 6 months			\$42.45	\$63.68	\$84.90	
<i>comment</i>	<i>make up day allowed</i>						
Saturday							

PL67	Plasterer		9/8/2010	\$44.72	\$60.11	\$75.50	H H H X D D D D N
Apprentice Rates:							
	1st 6 months			\$29.33	\$37.02	\$44.72	
	2nd 6 months			\$30.87	\$39.34	\$47.80	
	3rd 6 months			\$32.41	\$41.64	\$50.88	
	4th 6 months			\$35.49	\$46.26	\$57.04	
	5th 6 months			\$38.56	\$51.16	\$63.76	
	6th 6 months			\$41.64	\$55.49	\$69.34	

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule
 Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 27 of 31

Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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Plumber

PL-98		7/18/2013					
Plumber			\$64.45	\$84.87	\$101.29	H H D H D D D D Y	
Apprentice Rates:							
	Period 1		\$19.93	\$26.43	\$32.93		
	Period 2		\$23.90	\$31.40	\$38.90		
	Period 3		\$30.60	\$39.19	\$47.77		
	Period 4		\$31.23	\$40.13	\$49.03		
	Period 5		\$32.39	\$41.87	\$51.35		
	Period 6		\$33.54	\$43.59	\$53.65		
	Period 7		\$34.69	\$45.32	\$55.95		
	Period 8		\$35.86	\$47.07	\$58.29		
	Period 9		\$37.01	\$48.80	\$60.59		
	Period 10		\$38.16	\$50.53	\$62.89		

comment

4 tens allowed M-Th or T-F; OT of time and one half required on 11th & 12th hour of any ten hour days

Roofer

RO-149-WOM		9/27/2016					
Commercial Roofer			\$55.93	\$70.93	\$85.93	X X H X X H H D N	
Apprentice Rates:							
	new apprentice		\$37.34	\$45.07	\$52.80		
	Apprentice 1		\$41.85	\$49.81	\$57.77		
	Apprentice 2		\$42.36	\$50.57	\$58.79		
	Apprentice 3		\$43.87	\$52.84	\$61.81		
	Apprentice 4		\$45.37	\$55.09	\$64.81		
	Apprentice 5		\$46.88	\$57.35	\$67.83		
	Apprentice 6		\$48.29	\$59.47	\$70.65		
	Apprentice 7		\$49.90	\$61.89	\$73.87		
	Apprentice 8		\$51.41	\$64.15	\$76.89		

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County: Oakland

Official Rate Schedule

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Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

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Page 28 of 31

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					

Sewer Relining

SR-I 11/24/2015
 Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV system. \$43.66 \$59.01 \$74.36 H H H H H H D N

SR-II 11/24/2015
 Class II-Operator of hot water heaters and circulation system; water jetters; and vacuum and mechanical debris removal systems and those assisting. \$42.13 \$56.72 \$71.30 H H H H H H D N

Sheet Metal Worker

SHM-80 7/27/2017
 Sheet Metal Worker \$65.75 \$84.06 \$102.36 H H D X D D D D Y

Apprentice Rates:

1st & 2nd Periods	\$41.56	\$49.80	\$58.03
3rd & 4th Periods	\$43.39	\$52.55	\$61.69
5th & 6th Periods	\$45.21	\$55.28	\$65.33
7th & 8th Periods	\$47.06	\$58.04	\$69.03

comment

A 4 10 schedule may be worked, 4 consecutive days Monday thru Friday.

SHM-80-A 10/4/2017
 Architectural Sheet Metal Worker after 1,000 hours \$44.98 \$57.56 \$70.13 H H D H D D D D Y

Apprentice Rates:

1st 30 Working Days	\$26.67	\$38.88	\$51.08
>30 working days < 1000 hours	\$43.32	\$55.53	\$67.73

Official Request #: 749
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 Project Description: Boulton Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 29 of 31

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					

Sprinkler Fitter

SP 704		1/16/2018				
Sprinkler Fitter			\$68.92	\$87.93	\$106.94	H H D H D D D D Y
Apprentice Rates:						
	1st Period		\$29.55	\$38.52	\$47.27	
	2nd Period		\$45.16	\$55.26	\$65.10	
	3rd Period		\$47.32	\$58.54	\$69.48	
	4th Period		\$49.48	\$61.82	\$73.86	
	5th Period		\$51.64	\$65.10	\$78.22	
	6th Period		\$53.80	\$68.38	\$82.60	
	7th Period		\$55.96	\$71.66	\$86.98	
	8th Period		\$58.12	\$74.95	\$91.36	
	9th Period		\$60.28	\$72.01	\$87.44	
	10th Period		\$62.44	\$81.50	\$100.10	

comment

4 ten hour days allowed Monday-Friday
Double time pay due after 12 hours worked M-F

Terrazzo

BR1-TRF		10/17/2014				
Terrazzo Finisher			\$43.97	\$55.03	\$66.08	H H D H D D D D Y
Apprentice Rates:						
	Level 1		\$19.04	\$25.12	\$31.20	
	Level 2		\$20.24	\$26.92	\$33.60	
	Level 3		\$27.01	\$33.96	\$40.90	
	Level 4		\$28.47	\$36.14	\$43.82	
	Level 5		\$29.99	\$37.84	\$45.70	
	Level 6		\$31.61	\$39.86	\$48.10	
	Level 7		\$33.30	\$41.59	\$49.87	
	Level 8		\$34.79	\$43.48	\$52.17	

comment

A four ten workweek may be worked Monday thru Thursday or Tuesday thru

Official Request #: 749

Requestor: Troy School District

Project Description: Boulton Old Office Renovation

Project Number: BID 9860

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 30 of 31

Classification						
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision

BR1-TRW		10/17/2014				
Terrazzo Worker			\$49.73	\$63.67	\$77.60	H H D H D D D D Y

Apprentice Rates:

Level 1	\$25.14	\$32.65	\$40.15
Level 2	\$28.20	\$36.49	\$44.78
Level 3	\$33.41	\$41.97	\$50.53
Level 4	\$36.15	\$45.66	\$55.17
Level 5	\$38.42	\$48.17	\$57.92
Level 6	\$42.07	\$53.56	\$65.05
Level 7	\$42.74	\$54.38	\$66.02
Level 8	\$43.67	\$55.78	\$67.88

comment

A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru

Tile

BR1-TF		10/17/2014				
Tile Finisher			\$43.50	\$54.32	\$65.14	H H D H D D D D Y

Apprentice Rates:

Level 1	\$19.04	\$25.12	\$31.20
Level 2	\$20.24	\$26.92	\$33.60
Level 3	\$27.01	\$33.96	\$40.90
Level 4	\$28.47	\$36.14	\$43.82
Level 5	\$29.99	\$37.84	\$45.70
Level 6	\$31.61	\$39.86	\$48.10
Level 7	\$33.30	\$41.59	\$49.87
Level 8	\$34.79	\$43.48	\$52.17

comment

A four ten workweek may be worked Monday thru Thursday or Tuesday thru

Official Request #: 749

Requestor: Troy School District

Project Description: Boulan Old Office Renovation

Project Number: BID 9860

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2018 Commercial Prevailing Wage Rates for State Funded Projects

Issue Date: 5/29/2018

Contract must be awarded by: 8/27/2018

Page 31 of 31

Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			
BR1-TL		10/17/2014							
Tile Layer			\$49.68	\$63.59	\$77.50	H H D H D D D D Y			
Apprentice Rates:									
	Level 1		\$25.14	\$32.65	\$40.15				
	Level 2		\$28.20	\$36.49	\$44.78				
	Level 3		\$33.41	\$41.97	\$50.53				
	Level 4		\$36.15	\$45.66	\$55.17				
	Level 5		\$38.42	\$48.17	\$57.92				
	Level 6		\$42.07	\$53.56	\$65.05				
	Level 7		\$42.74	\$54.38	\$66.02				
	Level 8		\$43.67	\$55.78	\$67.88				

comment

A four ten workweek may be worked Monday thru Thursday or Tuesday thru

Truck Driver

TM-RB1		6/7/2016							
on all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)			\$44.10	\$48.81		H H H H H H H H Y			
TM-RB1A		6/7/2016							
of all trucks of 8 cubic yard capacity or over			\$44.20	\$48.96		H H H H H H H H Y			
TM-RB1B		6/7/2016							
on euclid type equipment			\$44.35	\$49.19		H H H H H H H H Y			
<i>make up day allowed</i>									

Official Request #: 749
 Requestor: Troy School District
 Project Description: Boulan Old Office Renovation
 Project Number: BID 9860
 County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

SECTION 00880
REGULATORY REQUIREMENTS

1. STANDARDS, CODES AND REGULATION

- 1.1. All Work is to comply with the rules and regulations of governing bodies having jurisdiction.
- 1.2. Standards, codes and regulations published by Manufacturer's associations, governmental agencies and other regulatory authorities form a part of these Specifications as minimum requirements. Such references include the latest issue and legal requirements in force.
- 1.3. Where differences occur between the Contract Documents and such standards, the strictest requirements shall take precedence.
- 1.4. Supply all materials and perform all Work in accordance with the Manufacturer's specifications and installation procedures, and in conformance with published Trade and Manufacturers' association standards, unless specifically noted otherwise in the Contract Documents.

2. PERMITS AND FEES

- 2.1. The Troy School District will obtain and pay for the General Building Permit.
- 2.2. Other than the general building permit, Contractor shall provide and pay for all other permits, assessments, governmental fees, bonds, connection charges, licenses and inspection fees and any other charges necessary for the proper execution and completion of the Contractor's Work.
- 2.3. Contractor is to provide, pay for and coordinate all other permits, fees, inspections, and city, county, state, federal and governing authority approvals required for the successful completion of the Work contained within its respective Bid Category and deliver required certificates of inspection and approvals to CM.
- 2.4. This Project is under but not limited to the jurisdiction of the
 - MICHIGAN DEPARTMENT OF LABOR FOR MECHANICAL AND ELECTRICAL
 - STATE OF MICHIGAN FIRE MARSHAL DIVISION
 - MICHIGAN DEPARTMENT OF PUBLIC AND (COUNTY) DEPARTMENT OF PUBLIC HEALTH
 - Site water and sewer utilities are under the jurisdiction of the COUNTY DRAIN/ROAD COMMISSION authorities

3. TAXES

- 3.1. This Project is subject to all applicable state Sales Tax and/or Use taxes, and Bidder must include such taxes in its Bid Proposal. All other taxes applicable to the project at the time of the bid are to be included in the bid amount and will be the responsibility of Bidder.

END OF SECTION 00880

**SECTION 01140
USE OF PREMISES**

1 RULES AND ENFORCEMENT:

- 1.1. Contractor and its Subordinate Parties shall be subject to rules and regulations for the conduct of the Work as stated herein and as the Owner or CM may establish.
- 1.2. Willful disregard of the following will be grounds for requiring the offending person(s) to be removed from the Project, and may subject the Contractor to termination under the Agreement.

2 USE OF PREMISES AND DELIVERIES

2.1. ACCESS TO WORK:

- 2.1.1. Before starting the Work, Contractor shall ascertain from CM what entrances, routes or roadways shall be used for access to the Work, and use only those designated for movement of personnel, materials and vehicles to and from the Project site.
- 2.1.2. Close coordination is required of Contractor with the Owner, CM, other contractors, the city and others having an interest in the Project to assure that Work on the site, access to and from the site and the general conduct of operations is maintained in a safe and efficient manner, and that disruption and inconvenience to existing streets and property is minimized.
- 2.1.3. Contractor is responsible to review the site and be familiar with all existing conditions within and around the Owner's property including local conditions and requirements.

2.2. ENTRANCES AND DRIVES

- 2.2.1. Specific entrances for material deliveries, equipment deliveries and worker access to the Project site will be as designated/directed by CM.
- 2.2.2. Selected entrances to the Project site will remain open for use during normal working hours.
- 2.2.3. At no time are vehicles to be parked, whether attended or not, in the Owner's entrances or drives.
- 2.2.4. Any material delivery which will tie up the Owner's entrances or drives shall be pre-scheduled with the Owner through CM.
- 2.2.5. Owner's deliveries and operations will take precedence over scheduling of construction deliveries.

2.3. ACCESS TO BUILDINGS:

- 2.3.1. Maintain free access to all buildings and areas of the site for designated vehicles, service vehicles and firefighting equipment, and at no time shall block off or close roadways or fire lanes without providing auxiliary roadways and means of entrance acceptable to the Owner and CM.
- 2.3.2. Maintain a clean and safe passageway for the Owner's operations and personnel in existing areas, and maintain clearances adjacent to and in connection with the Work performed. Fire hydrants must remain accessible at all times.
- 2.3.3. Give the Owner and the local fire department at least forty-eight (48) hours' notice of any such changes of routes.

2.4. SITE PARKING:

- 2.4.1. There is on-site parking for Contractors and their Subordinate Parties' employees.
- 2.4.2. Contractor, Subordinate Parties and their personnel will be allowed to park in the Owner's parking area. Each Contractor is responsible for providing transportation to and from the site, if required.

- 2.5. **LOADING OF STRUCTURE:** Each Contractor on behalf of itself and its Subordinate Parties shall not load or permit any part of a structure to be loaded with a weight that will endanger its safety.
- 2.6. **USE OF OWNER'S EQUIPMENT:** Contractors and their Subordinate Parties will not be allowed to use any Owner tools or equipment during the course of the Project.
- 2.7. **USE OF EXISTING ELEVATORS**
 - 2.7.1. Contractor may subject to the approval of CM and Owner, use the existing elevator(s) designated by the Owner within the contract boundaries for movement of personnel and materials to a construction area.
 - 2.7.2. In those cases where an elevator is to be shared with Owner services, the Owner's employees and services take priority over construction activities.
 - 2.7.3. Contractor is responsible for proper conduct with regard to the use of the elevator. Any damage to the elevator due to oversize load, excess weight or other conditions is the individual Contractor's responsibility.
 - 2.7.4. Use of the elevator(s) at times other than normal working hours shall be coordinated with CM and Owner.
- 2.8. **USE OF EXISTING FACILITIES**
 - 2.8.1. Limit the usage of the occupied areas of the facility to that which is absolutely necessary for the installation of the Work. Parts of the facility not in the construction area are "off limits" unless a specific work task is being performed as designated by CM.
 - 2.8.2. Use of the Owner's cafeteria, parking, telephones, toilet facilities, tools, equipment, or any other item or facility belonging to the Owner is not allowed unless specifically authorized by Owner and CM.
 - 2.8.3. Restrict all Work activities associated within an area undergoing renovation to the boundaries indicated by the Contract Documents. Any means of access or egress from the stipulated boundaries shall be coordinated with CM and the Owner.
3. **WORK HOURS:**
 - 3.1. Normal working hours are; 7:00 AM to 3:30 PM, Monday through Friday.
 - 3.2. Work operations shall comply with all applicable laws, ordinances, and regulations, and not create a public nuisance nor disturb the peace.
 - 3.3. Compensation to CM for supervisory staff due to abnormal working hours will be at the requesting Contractor's expense.
 - 3.4. Whenever Contractor intends to depart from normal work hours, it shall notify CM in writing at least forty-eight (48) hours in advance. Failure of Contractor to give such timely notice may result in CM directing the removal or uncovering of the Work performed during such abnormal hours at Contractor's expense. Special arrangements can be made for emergency work or shutdowns as may be required.
 - 3.5. Required off-hours work:
 - 3.5.1. Contractors may be requested to work split shifts, weekends, off peak Owner loading periods, etc., to accommodate Owner's utility and service requirements, such as, but not limited to, medical gas systems, electrical power, HVAC systems, storm and sanitary lines.
 - 3.5.2. All Work shall be bid on a straight time basis. Should premium time be required by the Owner, the cost for premium time labor, which may be required, is the Contractor's responsibility and is to be included in the base bid.
4. **USE OF EXPLOSIVES:** Is NOT permitted.
5. **DUST, DIRT, NOISE:** Each Contractor shall effectively confine or eliminate dust, dirt and noise to the actual construction area and in compliance with all applicable laws, rules and regulations.

- 6 **BEHAVIOR AND CONDUCT:** The Owner and CM expect Contractors and their Subordinate Parties to exercise common sense and good judgment, and to conduct themselves in a manner which would be a credit to the Owner. Without limiting other applicable provisions of the Contract Documents, Contractor shall not engage in the following:
- 6.1. Conduct that interferes with Work or work of others.
 - 6.2. Conduct that interferes with or is detrimental to safety, well-being of the owner, their operations and/or good reputation.
 - 6.3. Unauthorized use of confidential information.
 - 6.4. Discourtesy toward Owner's staff, visitors and the general public (including abusive, vulgar or other language.)
 - 6.5. Soliciting, canvassing, posting, or distributing literature or materials for any purpose while on the job site.
 - 6.6. Disregard of safety, sanitation, or security laws, rules and regulations.
 - 6.7. Stealing.
 - 6.8. Gambling.
 - 6.9. Possession and/or use of narcotics or intoxicants.
 - 6.10. Threats or abuse of others.
 - 6.11. Disorderly conduct or fighting.
 - 6.12. Playing of loud music.
 - 6.13. Falsification of information.
 - 6.14. Unauthorized travel of Contractor's employees outside the designated project Work areas.
 - 6.15. Discriminating behavior.
 - 6.16. Possession and/or use of weapons or firearms.
 - 6.17. Sexual or Ethnic harassment.
 - 6.18. Smoking: Contractors and their Subordinate Parties shall be responsible for adhering to the smoking policies and regulations of the Owner and the Owner's facilities.
- 7 **TEMPORARY PARTITIONS:**
- 7.1. Partition construction shall provide a fire-resistant classification approved by the authorities having jurisdiction. Openings in such partitions shall be protected by fire doors consistent with the rating of the partition. Any trade creating penetrations through the temporary partitions shall fire stop openings to match the rating of the wall.
- 8 **PROTECTION OF FACILITIES**
- 8.1. Each Contractor on behalf of itself and its Subordinate Parties shall be responsible for all damage to the Project including the existing buildings and grounds arising or resulting from its operations under the Agreement. Repair or replacement of damaged items shall be to the satisfaction of the Owner and CM.
 - 8.2. Each Contractor shall provide and maintain proper shoring and bracing for existing underground and aboveground utilities, foundations, structure and systems encountered during its Work and shall
 - 8.2.1. protect the project, or any part thereof, and surrounding areas from collapse or movement, or any other type of damage until such time as they are to be removed, incorporated into the new Work or can be properly supported or backfilled upon completion of new Work.
 - 8.2.2. limit disruptions to a maximum of four (4) hours.

- 8.2.3. prior to beginning any Work that may affect underground facilities, contact MISS DIG and utility companies for the location of all existing underground services.
 - 8.2.3.1. Provide documentation of such contact to CM.
 - 8.2.3.2. If necessary, Contractor shall pay for layout and locating of existing utilities.
 - 8.3. Utilities and/or other services which are shown, or not shown but encountered, shall be protected by the Contractor from any damage arising or resulting from Work, unless or until they are abandoned. If the utilities or services are damaged from Contractor's Work, Contractor shall immediately repair any damage and restore the utilities and services to an equal or better condition than that which existed prior to the damage. Contractor will be responsible for all liabilities, expenses, lawsuits or claims arising or resulting from such damage and will defend, hold harmless and indemnify Owner and CM from any claims or lawsuits or other expenses.
 - 8.4. Each Contractor on behalf of itself and its Subordinate Parties shall be responsible for all damage to the Project and surrounding areas including the existing building and grounds arising out of or resulting from their performance of the Work. Repair or replacement of damaged items shall be to the satisfaction of the Owner and CM.
 - 8.5. Preservation of existing trees and other vegetation on the site to the maximum extent possible is required.
 - 8.5.1. Each Contractor must plan its Work and instruct its Subordinate Parties to conduct their operations to avoid damage to trees and vegetation (provide barriers as required.)
 - 8.5.2. Indiscriminate driving about the site, disposing of waste, storage of materials upon or against trees or any other activity which is harmful to trees or vegetation will not be tolerated.
 - 8.5.3. Any case of damage to any tree shall be reported to CM immediately so that professional repairs can be made. The cost of such required repairs or treatment shall be charged to the responsible Contractor.
- 9 OWNER'S OPERATIONS & INTERRUPTION OF OCCUPANCY /SEQUENCING
- 9.1. The Owner shall have the option to curtail or delay any activity that affects its operations. Should a Contractor be asked to stop its Work, the Contractor shall do so immediately and proceed with other activities with no additional cost to the Owner or CM.
 - 9.2. The Owner may occupy the premises during the entire period of construction to conduct operations.
 - 9.3. Each Contractor is responsible to plan, coordinate and execute its Work in such a manner that there will be no disruption of or the least disruption to the Owner's operations. If an interruption of operations is unavoidable, then this Work will be scheduled with the Owner through CM.
 - 9.4. Contractors is responsible to provide temporary utilities and systems to maintain services to the facility while Work is being performed.
 - 9.5. No interruptions to Owner's power, lighting, signal, or alarm circuits will be permitted without the express written permission of the Owner through CM. Arrangements for interruptions shall be made with the Owner at least forty-eight (48) hours prior to the interruption and shall be made at such time and duration as authorized by them. Temporary feeders, transformer jumpers, connections, circuits, etc., shall be used as required to accomplish the above at no additional cost to the Owner and CM.
- 10 MATERIAL STORAGE
- 10.1. All Contractors are required to provide and pay for off-site storage facilities as required for their Work.
 - 10.2. All Contractors will not be allowed on-site storage facilities. Material, equipment and tools, shall not be stored on-site in excess of five (5) working days prior to installation or use without CM's approval.
 - 10.3. Storage of combustible materials within or adjacent to the building is prohibited.
 - 10.4. All Contractors shall

- 10.4.1. Stock the job with sufficient materials to maintain progress and schedule and without interfering with the Work or storage of others.
- 10.4.2. Assume full responsibility for the protection and safekeeping of products under their control which are stored on the site.
- 10.4.3. Move any stored products under their control, which interfere with operations of the Owner or separate contractors as directed by CM.
- 10.4.4. Provide sufficient protection for its materials and equipment from damages by weather or construction work or other hazards.
- 10.4.5. Remove all debris and leave the area in a clean and orderly condition during progress of Work and upon completion of the Work.
- 10.4.6. Submit a receipt of shipment for all equipment stored on-site or off-site to CM. No materials or equipment shall be removed from the site without the permission of CM

END OF SECTION 01140

SECTION 01250 CHANGES IN THE WORK

1 SUMMARY

1.01 This section describes the following requirements including:

1.01.1 Types of Change Documentation

1.01.1.1 PCO – Potential Change Order

1.01.1.2 CO – Change Order

1.01.2 Compensation of Overhead and Profit for Changes in the Work

1.01.3 Itemization of Cost of Changed Work

1.02 This section is not intended to include RFI's, ASI's (Architects Supplemental Instructions), or other documents that clarify the work but have no substantive cost or schedule impact to the work.

2 TYPES OF CHANGE DOCUMENTATION

Changes to the work which may involve a change in the contract price or schedule will be accompanied by the Barton Malow form entitled "PCO- Quotation Only". In the event that the timing does not allow the For Quote Only process, then CM will issue its form entitled "PCO-Notice to Proceed. "

2.1. PCO- NOTICE TO PROCEED AND FOR PCO- QUOTATION ONLY FORMS

- 2.1.1. A PCO- Notice to Proceed is used when Work must be performed with swiftness and authorization to proceed by Change Order is inappropriate due to time restrictions. In order for a PCO- Notice to Proceed to be valid, it must be signed by CM. The terms for establishing the additional cost and processing of the PCO- Notice to Proceed into a Change Order shall be identified prior to its release by CM.
- 2.1.2. If a change results in a change in cost, CM will issue a PCO with the supporting change documents.
- 2.1.3. Contractor shall prepare a detailed cost quotation for the PCO. This quotation shall include an itemized takeoff of labor, equipment and material with a unit cost for each item together with backup and breakdown documentations satisfactory to CM. The PCO must be returned as directed
- 2.1.4. Contractor shall sign and date the PCO and submit it with proper backup. The PCO will then be reviewed, evaluated, negotiated and then, when acceptable, processed
- 2.1.5. The PCO- Quotation Only is a document used for processing Contractor's quotations and is **not** a Change Order. Therefore, completion of the PCO- Quotation Only does **not** release the Work to begin.
- 2.1.6. PCO's will precede a Change Order. Contractors shall receive an approved PCO- Notice to Proceed or an executed Change Order before starting Work. Any changed Work performed by Contractor without a properly executed PCO- Notice to Proceed or a properly executed Change Order is at Contractor's sole risk and expense. BILLINGS AGAINST CHANGES WILL NOT BE ACCEPTED AFTER A PCO- NOTICE TO PROCEED OR FOR QUOTE ONLY IS ISSUED, BUT ONLY AFTER A CHANGE ORDER HAS BEEN PROCESSED AND SIGNED BY ALL PARTIES.

2.2. CHANGE ORDER

- 2.2.1. Change Orders will be issued by CM. CM will first issue the Change Order to the Contractor for signature. The Change Order will then be returned to CM. Once all appropriate signatures are secured, an executed copy will be sent to the Contractor.
- 2.2.2. Once the Change Order has been processed and signed by all parties, the Contractor may invoice for payment on the completed portion of Work.
- 2.2.3. Agreement on a Change Order shall constitute a final settlement of all matters relating to the changed Work that is the subject of the Change Order.

3. COMPENSATION OF OVERHEAD AND PROFIT FOR CHANGES IN THE WORK

3.1. CONTRACTOR'S OVERHEAD AND PROFIT

- 3.1.1. For changes resulting in increase of cost:
 - 3.1.1.1. Overhead and profit for the Contractor shall not exceed the following when change Work is performed by
 - 3.1.1.1.1. Contractor itself: fifteen percent (15%).
 - 3.1.1.1.2. Contractor subordinate party: five percent (5%)
 - 3.1.1.2. Overhead and profit for the subordinate party shall not exceed the following when change Work is performed by
 - 3.1.1.2.1. Subordinate party itself: fifteen percent (15%)
 - 3.1.1.2.2. Contractor to the subordinate party: five percent (5%)
- 3.1.2. For changes resulting in reduction of cost
 - 3.1.2.1. Deductive costs shall include commensurate deductive credits for overhead and profit based on the percentages stated above.
- 3.1.3. Contractor's and Subordinate Party's overhead and profit shall include cost (at the Project Site, home office and otherwise) of supervision, telephone, travel, copying, administrative services, office, power, light, tools, jobsite vehicles, and all other general expenses including bond premiums. In no event shall these items be charged as cost of the Changed Work.

4. ITEMIZATION OF COST OF CHANGED WORK

4.1. EXTRA WORK TICKETS

- 4.1.1. If extra work is to be completed above and beyond the terms of the contract, as determined by (and approved in advance by) the CM, the Contractor is required to:
 - 4.1.1.1. Provide an Extra Work Order ticket to the CM within three (3) days of completing the work.
 - 4.1.1.1.1. Extra Work Order tickets will be rejected if they are not turned in to the CM within three (3) days of completing the work.
 - 4.1.1.1.2. Extra Work Order tickets are to be completed in triplicate and a copy is to be left with the CM.
 - 4.1.1.1.2.1. The CM will sign all copies of the Extra Work Order tickets and return two (2) to the Contractor in a prompt manner, keeping one for record.
 - 4.1.1.1.3. A copy of the signed ticket(s) must accompany the Request for Change Order(s) quote from the Contractor. A change order will not be processed and the Request for Change Order(s) will be rejected if there is no signature from the CM.

4.1.1.2. Provide the CM with a Request for Change Order for the extra work within ten (10) days of receiving the signed ticket.

4.1.1.2.1. The Request for Change Order must be accompanied by a copy of the signed Extra Work Order ticket from the Contractor.

4.1.1.2.2. The Request for Change Order will be rejected and no PCO or Change Order will not be processed if the quote is not received within ten (10) days of the date signed by the CM.

4.2. CORRELATION WITH CONTRACTOR'S SUBMITTALS

4.2.1. Contractors shall

4.2.1.1. Revise the Schedule of Values and Request for Payment forms to record each Change Order as a separate item of Work, and to record the adjusted contract price.

4.2.1.2. Revise the Construction Schedule to reflect each change in Contract Time approved by a Change Order.

4.2.1.3. Revise sub-schedules to show changes for other items of Work affected by the changes.

4.2.1.4. Enter and revise Record Documents to reflect changes

4.3. COST OF THE CHANGED WORK

4.3.1. The "Cost of the Changed Work" shall be approved by CM and shall mean the costs necessarily incurred by the Contractor in the proper performance of the Changed Work. Such rates shall not be higher than those customarily paid at the place of the Project. The Cost of the Changed Work shall only include those items set forth below.

WAGES OF LABOR	Wages of construction workers directly employed by Contractor to perform the construction of the changed Work at the site
PAYROLL MARKUP	The amount approved by CM and Owner which covers the costs paid by the Contractor for taxes, insurance, contributions, assessments, and benefits required by law or collective bargaining agreements and for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays vacations and pensions, provided that such costs are based on the wages and salaries of labor performing the changed Work.
COST OF EQUIPMENT, MATERIALS, AND SUPPLIES	Costs of materials, equipment and supplies to be incorporated into the changed Work less all savings, discounts, rebates and credits accruing to the Contractor.
RENTAL CHARGES FOR EQUIPMENT NOT OWNED BY CONTRACTOR	Rental charges for equipment not owned by Contractor that is necessary for completion of the Changed Work. Rates and quantities rented must be approved in advance by CM.
TAXES	Sales or use taxes imposed by a governmental authority which are directly attributable to the changed Work and for which the Contractor is liable.
SUBORDINATE PARTY COSTS	Payments made to the Contractors for proper execution of Changed Work, subject to the limits set forth above for overhead and profit.

4.2.2. In no event shall the Cost of Changed Work include:

- 4.2.2.1. Salaries or wages of persons other than those directly performing the changed Work, including Contractor's personnel stationed at the principal office;
- 4.2.2.2. Expenses of the Contractor's principal office and offices other than the site office, except as provided above;
- 4.2.2.3. Overhead and general expenses of any nature, except as set forth above;
- 4.2.2.4. Capital expenses of Contractor, including interest on the Contractor's capital employed for the Changed Work;
- 4.2.2.5. Rental costs for machinery or equipment, except as allowed above, or tools of any kind, unless specifically identified and approved in advance in writing by CM;
- 4.2.2.6. Costs due to the negligence or failure to perform of the Contractor or its Subordinate Parties;
- 4.2.2.7. Costs designated above as being included in Overhead and Profit
- 4.2.2.8. Any cost not specifically described above, or otherwise approved in advance and in writing by CM and Owner.
- 4.2.2.9.** Any bond premiums of portion of increased bond costs directly attributable to the changed Work.

4.3. QUOTATION FORMAT

Based on the above, the following formula will be utilized by all of the Contractors.

Number of PCO _____

Date of PCO _____

Description of Change _____

Cost of Changed Work

Labor:

Carpenter	(No. of Hrs. x Rate)	xxx.xx	
Labor	(No. of Hrs. x Rate)	xxx.xx	
Ironworker	(No. of Hrs. x Rate)	<u>xxx.xx</u>	
	Subtotal		xxx.xx
	OH&P @ 15%		xxx.xx

Equipment, Materials, Supplies:

Ace Hardware	xxx.xx		
Acme Products	xxx.xx		
Concrete Supplier	<u>xxx.xx</u>		
	xxx.xx		
	Subtotal		xxx.xx
	OH&P @ 15 %		<u>xxx.xx</u>
	Subtotal (1)		xxx.xx

Contractor Costs

ABC Welding	xxx.xx		
XYZ Resteel	<u>xxx.xx</u>		
	Subtotal		xxx.xx
	OH&P @ 5 %		<u>xxx.xx</u>
	Subtotal (2)		xxx.xx

TOTAL QUOTATION AMOUNT

Total Quotation (Subtotal 1 plus Subtotal 2)

xxx.xx

END OF SECTION 01250

SECTION 01290 PAYMENT PROCEDURES

1. SUMMARY

1.1. This Section describes the following requirements including:

- 1.1.1. Schedule of Values
- 1.1.2. Application for Payment Process
- 1.1.3. Reduction of Retention
- 1.1.4. Payment for Materials Stored Off-site
- 1.1.5. Waivers of Lien and Sworn Statements

2. PAYMENT PROCEDURES

2.1. SCHEDULE OF VALUES

- 2.1.1. Once the Agreement is awarded, each Contractor must submit a Schedule of Values for its entire Work to CM for approval. This Schedule of Values must be submitted either within fifteen (15) days of award or fifteen (15) days prior to the first payment application deadline (per the Application for Payment Schedule), whichever comes first. The Schedule of Values must include labor and material line items for each portion of the Work (larger portions of Work such as concrete, curtainwall, drywall, mechanical, and electrical shall be broken down by elevation, floor, and areas appropriate), the Contractor shall separate bond costs, and general conditions line items as appropriate.
- 2.1.2. The Schedule of Values will be submitted in a format as prescribed by, and to the level of detail specified by, CM.
 - 2.1.2.1. The sum of the parts of the Schedule of Values shall equal the contract price.
 - 2.1.2.2. The minimum level of breakdown and order on the application for payment will be:
 - 2.1.2.2.1. Bond costs, if applicable
 - 2.1.2.2.2. General conditions line item(s)
 - 2.1.2.2.3. Division 1 cost breakdown as required
 - 2.1.2.2.4. Costs associated with preparation of closeout paperwork and documentation
 - 2.1.2.2.5. Major portions of the Work shall be broken down into labor and material line items for specific areas of the facility
 - 2.1.2.2.6. A listing of approved and executed Change Orders to the Contract, if any, in sequential order.
 - 2.1.2.3. Schedule of Values items shall have a direct and understandable relation to the Project master construction schedule.
 - 2.1.2.4. Overhead and profit shall be listed as a separate line item on the schedule of values.
- 2.1.3. The Schedule of Values, unless objected to by CM, Owner or Architect, shall be the basis for the Contractor's application for payments.
- 2.1.4. CM shall have the right to require the Contractor to alter the value or add/delete categories listed on the Schedule of Values at any time for the following reasons:
 - 2.1.4.1. The Schedule of Values appears to be incorrect or unbalanced.

- 2.1.4.2. A revision of the Schedule of Values is required due to the Contractor revising the sequence of construction or assembly of building components that in turn invalidates the Schedule of Values.
- 2.1.4.3. Change Orders are issued to the Contractor and shall be incorporated into the Schedule of Values as a separate line item at the bottom of the Schedule of Values.
- 2.1.5. The Contractor is required to correlate the documentation for payment of stored materials requested in the application for payment against the agreed upon breakdown of the Schedule of Values as described in Payment for Stored Materials. CM reserves the right to not process the application for payment if this correlation has not been submitted in conjunction with the application.

2.2. APPLICATION FOR PAYMENT PROCESS

2.2.1. Step 1: JOB-SITE INSPECTION - DRAFT PAYMENT REQUEST

2.2.1.1. The Contractor shall

- 2.2.1.1.1. have a representative walk the Project site with CM's representative on or before the tenth (10th) of the month,
- 2.2.1.1.2. invoice for Work from the tenth (10th) of last month to the tenth (10th) of the present month.
- 2.2.1.1.3. submit during the review, the itemized rough draft of the Application and Certificate for Payment (AIA Documents G702 and G703 Continuation Sheet) identifying the Work completed, if any, during the current calendar month; shall review same with CM and obtain a preliminary approved copy of the draft for official submission
- 2.2.1.1.4. Contractor's pay application shall only reflect Work completed through the date of submission. In no event will payments be authorized for forecasted Work.

NOTE: No payment shall be issued to a Contractor for materials stored off-site unless supported by proper documentation as required by CM (upon advance notification of such requests only) as described in Part 3 Payment for Stored Materials.

2.2.2. Step 2: PAYMENT REQUEST PREPARATION/SUBMISSION

- 2.2.2.1. With the information agreed upon in Step 1, the Contractor will prepare a formal application for payment request.
- 2.2.2.2. Final electronic copies are due to CM on or before the fifteenth (15th) of the month.
- 2.2.2.3. Late or incomplete application packets will not be accepted.**
- 2.2.2.4. The payment request will be made on an Application and Certificate for Payment form (AIA documents G702 and G703).
- 2.2.2.5. Before submitting these documents to CM, each request for payment must be signed by a duly authorized agent of the Contractor and notarized.
- 2.2.2.6. The Contractor must include with each request for progress payment a waiver of lien for all previous payments, Contractor's sworn statement and any necessary backup data as described in Part 4, Waivers of Lien and Sworn Statements.
- 2.2.2.7. In addition, at submission of the final pay application Contractor shall provide unconditional final waivers of lien for all Subordinate Parties, as well as all close out documentation and all additional back up data described in Part 4, Waivers of Lien and Sworn Statements.
- 2.2.2.8. In requests for payment which follow the execution of a Change Order in excess of twenty-five percent (25%) of the Agreement price, Contractor must present a bond

rider evidencing that the penal sum of any required payment and performance bonds have been increased to one hundred percent (100%) of the adjusted Agreement price, or such other percentage as set forth in Section 00200 of the Project Manual, Instructions to Bidders. Submission of the required back-up data is a condition precedent to payment.

2.2.3. Step 3: CHECK DISTRIBUTION

2.2.3.1. CM will issue individual checks to each Contractor. The Contractor will receive the waiver of lien with the check and will be required to sign three (3) originals of the waiver upon receipt of the check each month (see Part 4).

2.2.3.2. The Contractor shall provide all supporting documentation substantiating the Contractor's right to payment as the Owner, CM and the Architect may require.

2.3. REDUCTION OF RETENTION

2.3.1. CM shall be entitled to withhold ten (10%) percent of each payment due to a Contractor until Substantial Completion of the Contractor's Work.

2.3.2. The Contractor, when requesting a reduction of retention, shall submit to CM, an AIA G707, Consent of Surety to Reduction In or Partial Release of Retention form in Section 01600 Forms.

2.3.3. Within thirty (30) days after Certificate of Substantial Completion has been issued for all portions of its Work, the Contractor's retention may be reduced to a sum as CM/the Architect may determine is suitable to protect CM and the Owner for all incomplete Work and any unsettled claims.

2.3.4. Notwithstanding the foregoing, payment of retention shall be subject to all other conditions precedent that applies to payment as set forth in the Contract Documents.

3. PAYMENT FOR MATERIALS STORED OFF-SITE

3.1. PAYMENT FOR MATERIALS STORED OFF-SITE

3.1.1. The Contractor, if intending to use an off-site storage area or facility for stored materials, shall submit a written request to the CM and obtain approval prior to submitting the first application for payment as described in Part 2 Applications for Payment.

3.1.2. Payments will be made for materials properly stored off site.

3.1.2.1. "Properly stored" shall mean in an insured warehouse with the Owner and CM being named as insureds, and all material identified as property of the Owner.

3.1.2.2. The Contractor is responsible for all associated off site storage costs, transportation, insurance, including insurance coverage for stored material, while in transit, unless Contractor obtains written documentation that the material is covered during transit under a Builder's Risk Policy applicable to the Project.

3.1.2.3. Contractor shall provide CM and the Owner verification in writing for all material so stored. Such materials shall be protected from diversion, destruction, theft, and damage to the satisfaction of CM, Owner and the Lender (if any), specifically marked for use on the Project, and segregated from other materials at the storage facility.

3.1.2.4. The Contractor bears all risk of loss to materials and equipment stored off site.

3.1.3. Contractor is to provide supporting documentation in the form of invoices, insurance policies, and any other pertinent documentation as requested by CM or Owner for items the items stored off-site. Documentation shall include the following:

3.1.3.1. Detailed description of the material including quantities that will serve as a material description for the billing and as information to file a claim with an insurance company.

- 3.1.3.1.1. Stored Materials - Each item must be identified as to manufacturer, model number, and serial number, if applicable, or other identifiers should be listed for each item. Each listing must be accompanied by invoices, shipping tickets, consent of surety, and any other applicable supporting documentation.
- 3.1.3.1.2. Stored Manufactured Building Materials - Each item must be identified as to type, manufacturer's number or designation, and should also list the number of cartons and the contents therein storage. Each listing must also be accompanied by supporting documents including all invoices, shipping tickets and consent of surety.
- 3.1.3.1.3. Stored Fabricated Materials - A listing specifying the number of pieces, items, and marks as may be applicable to the particular type of items. Photographs should accompany the request.
- 3.1.3.2. Individual itemized costs of materials and the total cost value, which shall not exceed the Contractor's subcontractor or material supplier cost. The total cost value shall be supported by the Contractor's subcontractor or material supplier invoices for the stored material.
- 3.1.3.3. Estimated cost value for those materials that are fabricated by the Contractor's subcontractor or material supplier.
- 3.1.3.4. The location where the material is physically stored, including the warehouse address and storage location within the warehouse, such as bin number, aisle number or other designation. All material shall be segregated and marked.
- 3.1.3.5. Copies of the insurance policies that cover the stored materials and that name CM and the Owner as insureds. The limit of the insurance policy shall be equal to or greater than the replacement value of the stored materials.
- 3.1.4. When Applications for Payment include products stored off the Project Site or stored on the Project Site but not incorporated in the Project, for which no previous payment has been requested, a complete description of such product shall be attached to the application.
- 3.1.5. Contractor shall submit a certificate of title listing the Owner's ownership in the off-site stored materials equal to the amount paid effective at the time funds are delivered.
- 3.1.6. If the size, quantity, and/or type of material or product is such that a bonded warehouse is deemed unsuitable, then, with CM's approval, the Contractor may elect to prepay its subcontractor or supplier for certain material and products which are to remain on and be stored on that subcontractor/supplier's premises until needed by the Project. In such event, the Contractor shall enter into a security agreement with the subcontractor/supplier under which the Contractor shall be granted a security interest in and to all such material and products fabricated and/or to be supplied by the subcontractor/supplier for this Project and stored on the subcontractor/supplier's premises. This Security Agreement shall be a part of the financing statement, which shall be presented to a filing officer for filing pursuant to the Uniform Commercial Code. All expenses incurred in obtaining this security agreement shall be at Contractor's sole cost and expenses, and shall not accrue to the Owner, CM, Architect, nor the Project. A copy of each and every security agreement shall be filed with CM with the first Application for Payment which requests payment for such material or products.
- 3.1.7. All payment requests for off-site stored materials must be accompanied using the "Payment Request for Stored Materials" and a "Subcontractor Affidavit for Stored Materials." Payment requests for stored materials not complying with the foregoing requirements will not be approved. Contractors are to notify the CM in ample time to conduct verification procedures.
- 3.1.8. Contractors may not apply the cost of materials stored off-site towards a reduction in the retention amount.

- 3.1.9. Representatives of CM and Owner shall have the right to make inspections of the storage areas at any time.

4. WAIVERS OF LIEN AND SWORN STATEMENTS

4.1. WAIVERS OF LIEN

- 4.1.1. The Contractor's first Application for Payment will be based upon 100 percent of the value of Work installed. The first payment, amounting up to 90 percent of application, will be made to the Contractor without supporting documentation. Subsequent Applications for Payment must be accompanied by lien waivers from the Contractor, its Subordinate Parties or receipted invoices covering payment to the Contractor for previous calendar month period. Lien waivers must be unconditional and must show the amount paid.
- 4.1.2. An "Acknowledgment of Payment and Partial Unconditional Release" will be distributed with the check to each Contractor by CM for payment of the previous month's application. The Waiver of Lien is to be signed by an authorized representative of the Contractor. Under no circumstances will payment be released until the completed "Acknowledgment of Payment and Partial Unconditional Release" has been submitted and signed by the Contractor from the previous month.
- 4.1.3. Final payment will not be made until a "Final Release Subcontractor/Materialman has been submitted. This will also be distributed by the CM for Contractor signature and must be returned by the Contractor. The Final Release must be signed by an authorized representative of the Contractor and must be notarized.
- 4.1.4. Final unconditional waivers will be required for all of Contractor's Subordinate Parties listed on Contractor's sworn statement. These final waivers must be submitted along with the final release, before payment can be made.

4.2. SWORN STATEMENTS

- 4.2.1. The appropriate number of original "Sworn Statements" must be completed to the satisfaction of CM, signed and notarized by an authorized representative of the Contractor and submitted with the Contractor's Application for Payment, monthly to the CM.
- 4.2.2. The Contractor's Subcontractor's sworn statements, waivers and other supporting documentation will be required with each pay application.

END OF SECTION 01290

SECTION 01310 MEETINGS

1. GENERAL

1.1. DESCRIPTION OF REQUIREMENTS

- 1.1.1. The CM shall schedule, chair, and administer all periodic meetings throughout the progress of the work for the purpose of coordinating and expediting the Work. Such meetings shall be held at the job site bringing together responsible representatives of active Contractors for the purpose of planning, assessing progress and discussing problems of mutual concern. Each Contractor, and its Subordinate Parties' representative attending the meetings shall be authorized to act on behalf of and make decisions/commitments for the entity each represents, the decisions made at the meetings and each Contractor who should be in attendance will be held responsible for information and directions given at the meeting.
- 1.1.2. The CM will prepare and distribute the minutes of all meetings, if CM determines minutes are required. If the attendees do not object in writing to any part of the meetings within ten (10) days of distribution of the minutes, the minutes shall be accepted as written.
- 1.1.3. The scope of meetings include, but are not limited to:
 - 1.1.3.1. Preconstruction Meeting
 - 1.1.3.2. Job Progress/Coordination Meetings
 - 1.1.3.3. Other Meetings

2. TYPES OF MEETINGS

2.1. PRECONSTRUCTION MEETING (KICK-OFF)

- 2.1.1. A Preconstruction (kick-off) meeting will be conducted with representatives of all the Contractors within fifteen (15) days after the Agreement is awarded at the jobsite or as designated by the CM. The agenda may include:
 - 2.1.1.1. Discussion on major subcontracts and suppliers
 - 2.1.1.2. Major and/or critical work sequencing regarding the project schedule
 - 2.1.1.3. Project coordination and designation of responsible personnel
 - 2.1.1.4. Procedures and processing of field instructions, requests for proposal, submittals, change orders, applications for payment, etc.
 - 2.1.1.5. Quality assurance/control issues
 - 2.1.1.6. Adequacy of distribution of contract documents
 - 2.1.1.7. Procedures for maintaining record documents
 - 2.1.1.8. Use of premises, office, work and storage areas and other CM requirements
 - 2.1.1.9. Construction facilities/temporary utilities
 - 2.1.1.10. Safety and security procedures
 - 2.1.1.11. Other administrative procedures
 - 2.1.1.12. Review of Owner expectations

2.2. JOB PROGRESS/COORDINATION MEETINGS

- 2.2.1. On-site project coordination/progress meetings will be held on a bi-weekly basis or as appropriate throughout the life of the Project. The [CM/Owner] will set the agenda for the Project progress meeting. At a minimum, each Contractor shall be prepared to discuss the following:
 - 2.2.1.1. Actual vs. scheduled progress for the prior two-week period

- 2.2.1.2. Planned construction activities for the next four weeks
- 2.2.1.3. Problems with, revisions to and corrective measures and procedures to regain the construction schedule, if required
- 2.2.1.4. Review of off-site fabrication, delivery schedules
- 2.2.1.5. Document clarification requests
- 2.2.1.6. Coordination items with other Contractors
- 2.2.1.7. Changes in the work affecting cost and/or time
- 2.2.1.8. Submittals and shop drawings
- 2.2.1.9. Field observations, problems, conflicts
- 2.2.1.10. Quality control issues and non-conformance resolutions
- 2.2.1.11. Safety issues

2.3. OTHER MEETINGS

- 2.3.1. QUALITY ASSURANCE MEETINGS - CM may conduct quality assurance/quality control meetings as necessary during the progress of the Work. CM will set the agenda for the quality meeting. At a minimum, the Contractor shall be prepared to discuss the following:
 - 2.3.1.1. Testing and inspection procedures
 - 2.3.1.2. Tolerance requirements
 - 2.3.1.3. Quality samples
 - 2.3.1.4. Reporting of non-conformance items
 - 2.3.1.5. Corrective actions assigned
 - 2.3.1.6. Disposal of non-conforming items
 - 2.3.1.7. Job procedures
- 2.3.2. SAFETY MEETINGS - Refer to Section 00810 Safety and Loss Control Program for more information.
- 2.3.3. INSPECTIONS TOURS - Formal inspections/tours may be made of the Project progress by the Owner, Architect, local, state or federal officials, insurance representatives, or others as the occasion warrants and as scheduled by CM. If requested by CM, each Contractor shall be prepared to show and explain Work throughout the building to the inspecting parties, in addition to providing Work in compliance with these inspections.
- 2.3.4. CHANGE REQUEST MEETINGS - Upon issuance of a major Proposal Request (a.k.a. bulletin), CM may conduct a meeting as necessary with all significant Contractors to review its contents and determine cost, delivery and schedule impacts. At a minimum, the Contractor shall be prepared to discuss the following:
 - 2.3.4.1. Impact of out-of-sequence work
 - 2.3.4.2. Identification of pertinent long-lead material and system impact
 - 2.3.4.3. Alternative recommendations
 - 2.3.4.4. Evaluation of approximate cost magnitude
 - 2.3.4.5. Evaluation of impact on completion
 - 2.3.4.6. Alternate sequencing
 - 2.3.4.7. Due date for Contractor pricing and scheduling impact

END OF SECTION 01310

SECTION 01320 COMMUNICATIONS

1. SUMMARY

1.1. This Section describes the following requirements including:

- 1.1.1. Meetings / Communications
- 1.1.2. Contractor Correspondence
- 1.1.3. Contractor's Daily Report
- 1.1.4. Request for Information (RFI)

2. METHODS OF COMMUNICATION

2.1. MEETINGS (previous Section 01310 – Meetings)

- 2.1.1. The CM shall schedule, chair, and administer all periodic meetings throughout the progress of the work for the purpose of coordinating and expediting the Work. Such meetings shall be held at the job site office bringing together responsible representatives of active Contractors for the purpose of planning, assessing progress and discussing problems of mutual concern. Each Contractor, and its Subordinate Parties' representative attending the meetings shall be authorized to act on behalf of and make decisions/commitments for the entity each represents, the decisions made at the meetings and each Contractor who should be in attendance will be held responsible for information and directions given at the meeting.
- 2.1.2. The CM will prepare and distribute the minutes of all meetings, if CM determines minutes are required. If the attendees do not object in writing to any part of the meetings within ten (10) days of distribution of the minutes, the minutes shall be accepted as written.
- 2.1.3. The scope of meetings include, but are not limited to:
 - 2.1.3.1. Preconstruction Meeting
 - 2.1.3.2. Job Progress/Coordination Meetings
 - 2.1.3.3. Other Meetings
 - 2.1.3.3.1. Quality Assurance
 - 2.1.3.3.2. Safety
 - 2.1.3.3.3. Inspection Tours
 - 2.1.3.3.4. Change Request

2.2. CONTRACTOR CORRESPONDENCE

- 2.2.1. All field and/or construction correspondence and/or communications must be directed through CM. All correspondence should list the following as appropriate:
 - 2.2.1.1. Project Name: **Troy School District – 2013 Bond Program – Series 2, Bid Package 24 –general trades items at Costello, Martell, Morse and Leonard**
 - 2.2.1.2. CM Job#: 140077
 - 2.2.1.3. Architect Job#:
 - 2.2.1.4. Contractor Contact Information
 - 2.2.1.5. Subject: clearly indicate subject matter of correspondence

2.3. CONTRACTOR'S DAILY REPORT

- 2.3.1. Each Contractor will prepare and distribute daily to CM a comprehensive daily report to include pre-task planning and maintain it during the entire project period. The daily report shall be

submitted to CM's superintendent by the end of the day for that day's Work. Each Contractor is responsible for specifically alerting CM to items which could result in claims or delays.

- 2.3.2. Each Contractor may provide its own daily report if it covers the same issues as addressed in CM's Contractor Daily Report / Pre-Task Plan form. The CM suggested report form will be provided to the Contractor and is in Section 01600 - Forms.

2.4. REQUEST FOR INFORMATION (RFI)

- 2.4.1. The Request for Information (RFI) is in Section 01600 Forms.
- 2.4.2. In the event that a clarification is required due to a question raised by the Contractor pertaining to the Contract Documents, the Contractor shall submit a Request for Information (RFI) to the CM, which will be forwarded to the Architect. The RFI should be sufficiently detailed to accurately describe the problem and provide a possible solution.
- 2.4.3. The Architect will return the RFI to CM as expeditiously as possible with its reply. In some instances, the Architect may issue its reply to the RFI on other documents, in which case, the RFI will simply reference these documents.
- 2.4.4. The RFI will be returned to the Contractor by CM. The Contractor is responsible to give proper notice as set forth in the Contract Documents if a response will cause the Contractor to incur additional expense or expend additional time which could impact the schedule. If extra work or an additional cost may exist due to the clarification, CM may issue a PCO- Quotation Only or PCO-Notice to Proceed to the Contractor.

END OF SECTION 01320

SECTION 01330 SUBMITTALS

1 SUMMARY

1.1. This Section describes the following requirements including:

- 1.1.1. Scope
- 1.1.2. Submittal Register
- 1.1.3. Submittal Requirements
- 1.1.4. Submittal Process and Responsibilities
- 1.1.5. Re-submission Requirements

2 SCOPE

- 2.01 Where requirements of this Section vary from the requirements of the General Conditions, this Section's requirements shall take precedence.
- 2.02 CM will prepare and submit a submittal register/schedule including close-out documentation for Contractor's use in preparing submittals required for the Project. Contractors shall complete the submittal schedule/register showing the dates for submission, lead times required and their expected delivery dates to maintain and follow the construction schedule. Dates for submission noted by Contractor must assume re-submittals will be required. Submittals received on the date scheduled will be processed as specified. CM/Owner/Architect will not be held responsible for delays due to receiving submittals after the date indicated in the Contractor's submittal schedule.
- 2.03 Submittals shall be submitted based on each technical specification section. Submittals containing information about more than one specification section will be returned for re-submittal.
- 2.04 Contractor is responsible to provide all submittals required under the Contract Documents, whether or not listed in the submittal register.
- 2.05 Furnish approved copies of shop drawings, diagrams, templates, catalog cuts, technical data, etc. to others for the purposes of coordination of this Work.
- 2.06 Coordination: Each Contractor shall coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 2.06.1 The Contractor, by providing the submittal assures the product or system submitted is available and deliverable in accordance with the schedule requirements.
 - 2.06.2 Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2.06.3 Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - 2.06.4 CM reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 - 2.06.5 Coordinate each submittal as required with all trades and with all public agencies involved.
 - 2.06.6 Secure all necessary approvals from public agencies and others; signify by stamp or other means that all required approvals have been obtained.
 - 2.06.7 Material Compliance Certificate:
 - 2.06.7.1 The following forms are available upon request from the CM:
 - 2.06.7.1.1 Material Compliance Certificate
 - 2.06.7.1.2 Approved Submittal List for Material Compliance Certificate Use

- 2.06.7.2 Contractors may choose to complete the *Material Compliance Certificate* form which will serve as the Contractor's official submittal document and must meet all general submittal requirements. Only approved submittals listed on the *Approved Submittal List for Material Compliance Certificate Use*, prepared by CM, will be reviewed in this format.
- 2.06.7.3 Items available to utilize the Material Compliance Certificate can include a submittal that establishes a level of quality by complying with the manufacturer and manufacturer's designated identifier as called for in the Contract Documents. The Contractor is committed to using this exact specified component. This Certificate is contractually binding.
- 2.06.7.4 This form can be used for multiple submittal items. The Architect/Engineer will review and approve the Material Compliance Certificate in the same manner as a standard submittal.
- 2.06.7.5 In the event additional information would be required after submission and/or approval of the Material Compliance Certificate, the Contractor must provide this information promptly through the standard revision process.

3. SUBMITTAL REQUIREMENTS

3.1. GENERAL

- 3.1.1. Each submittal shall show Contractor's review stamp, with handwritten signature, certifying review of the submittal, verification of field measurements and compliance with the Contract Documents.
- 3.1.2. Each submittal shall be accompanied with a Submittal Transmittal Form. The following information shall be furnished by the Contractor on the submittal transmittal form:
 - 3.1.2.1. Original Date of submission and Revision Date(s).
 - 3.1.2.2. Project name and Architect's and the CM's project number
 - 3.1.2.3. Names of:
 - 3.1.2.3.1. Contractor
 - 3.1.2.3.2. Second-Tier Contractor (if applicable)
 - 3.1.2.3.3. Supplier
 - 3.1.2.3.4. Manufacturer
 - 3.1.2.4. Identification of product or material
 - 3.1.2.5. Technical Section number, clearly identified. On multiple submittals, a separate transmittal should be completed for each specification section on items being submitted.
 - 3.1.2.6. Reference to construction drawings by drawing number
 - 3.1.2.7. The quantity of each Shop Drawing, Product Data or Sample submitted
 - 3.1.2.8. Notification of deviations from Contract Documents
 - 3.1.2.9. For Shop Drawings, show relationship to adjacent structure or materials
 - 3.1.2.10. For Shop Drawings, show field dimensions, clearly stated as such.
 - 3.1.2.11. Applicable standards such as ASTM or Federal Specifications.
 - 3.1.2.12. Other pertinent data
 - 3.1.2.13. Submittals not so transmitted will be returned un-reviewed. Re-submissions shall be so noted on the transmittal.

3.1.3. Unless noted otherwise on the submittal, all submissions will be considered to be "as specified."

3.2. REQUIRED QUANTITIES OF SUBMITTALS (ELECTRONIC REVIEW VERSION)

3.3.1. In general, all submittals, except color or physical samples, are to be posted electronically in PDF document form for CM and the Architect/Engineer to electronically review and approve. CM will use Prolog as a posting site for the facilitation of this review and approval process. The following number of originals and copies will be required for each type of submittal.

Submittal Type:	Required submit quantities:	
	Electronic ¹	Other
.1 Shop Drawings – Structural Steel and all MEP	1	
.2 Shop Drawings – all other	1	
.3 Product Data – Structural Steel and all MEP	1	
.4 Product Data – all other	1	
.5 Samples	1	3
.6 Certificates ²	1	
.7 Warranties / Guarantees ²	1	
.8 Test Reports ²	1	
.9 Close-Out Material: O & M Data ²	1	
NOTES : ¹ ALL electronic submittals shall be in PDF format ² Items #6-9 above are to be submitted together as part of the Close-Out Packet when requested by CM		

3.3.2. All submittals will be reviewed electronically, and an electronic BMC submittal transmittal is required. Reviewed versions will be sent back electronically. CM will notify Contractor of the posting and availability for Contractor to download the reviewed version. Paper copies will not be returned to the Contractor.

4. TYPES OF SUBMITTALS

4.1. SHOP DRAWINGS

- 4.1.1. Provide Shop Drawings as complete submittals (no partial sets) on original drawings or information prepared solely by the fabricator or supplier. In no instance shall the Contract Drawings be reproduced for Shop Drawing submittals.
- 4.1.2. Sheet sizes shall not exceed the size of the Contract Drawings or smaller than 8-1/2" X 11".
- 4.1.3. Each drawing shall have blank spaces large enough to accept three (3) 3" x 6" review stamps of the Contractor, the CM, and the Architect.

4.2. PRODUCT DATA

- 4.2.1. Modify Product Data sheets to delete information that is not applicable to the Project. Provide additional information if necessary to supplement standard information.
- 4.2.2. Product Data Sheets that are submitted with extraneous information not deleted and/or modified will be returned without review to the Contractor for re-submittal.

4.3. SAMPLES

- 4.3.1. Provide physical Samples to illustrate materials, equipment or workmanship, and to establish standards by which completed work may be judged as required by the technical section.
- 4.3.2. Provide Office Samples in sufficient size or as defined in the technical specifications and quantity to clearly illustrate full range of colors, textures, etc. available and the functional characteristics of the product or material.

- 4.3.3. Erect Field Samples or mock-ups as required by the technical sections and/or CM, at the Project site in a location designated by CM. Construct field samples complete, including Work of all trades required in finishing the Work. Provide Field Samples at the request of the Architect and/or CM where construction materials and/or methods deviate from the requirements of the intent of the Contract Documents or conventional construction practice.

4.4. CERTIFICATIONS

- 4.4.1. Certifications shall clearly identify the materials in reference and shall state that the material and the intended installation methods, where applicable, are in compliance with the Contract Documents for this project. Attach manufacturer's affidavits where applicable.

4.5. WARRANTIES/GUARANTEES

- 4.5.1. Provide warranties and/or guarantees as required by the various technical sections and other Contract Documents on the Contractor's letterhead in accordance with the requirements of the documents.
- 4.5.2. Refer to Section 01700 for additional close-out information and requirements including the standard CM Contractor's Guarantee Form that must be signed, without modification, in order to receive final payment. A copy of this form is either found in Section 01600 or is available upon request.

4.6. OPERATING AND MAINTENANCE MANUALS

- 4.6.1. Provide operating and maintenance manuals/data as required by the various technical sections in accordance with the requirements of the documents.

5. SUBMITTAL PROCESS AND RESPONSIBILITIES

5.1. Contractor's RESPONSIBILITIES

- 5.1.1. After the CM's and Architect's review, within one (1) week of receipt, Contractor is to distribute copies of the reviewed submittal to any supplier/fabricators, second or lower tier Contractors or other Contractors that must coordinate with this work. Contractor must maintain one copy at the Project Site for reference use.
- 5.1.2. Do not begin Work which requires submittals until return of submittals with CM's and Architect's stamp and initials indicating review with direction to proceed from either CM or Architect.
- 5.1.3. Contractor's responsibility for errors and omissions in submittals is not relieved by CM's or Architect's review of submittals.
- 5.1.4. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by CM's or Architect's review of submittals unless CM and Architect give written acceptance of specific deviations.

5.2. CM'S RESPONSIBILITIES

- 5.2.1. CM's review is for general administrative purposes only and neither this review, nor any subsequent approval by CM of a submittal, shall relieve Contractor from its obligations to comply fully with the Contract Documents.
- 5.2.2. CM will make changes or notations directly on the submittals, identify such review with its review stamp, sign and forward acceptable submittals to the Architect.
- 5.2.3. After the Architect's review, CM will forward submittals to the Contractor and retain one copy.

5.3. ARCHITECT'S RESPONSIBILITIES

- 5.3.1. Architect will review submittals within fourteen (14) Days after receipt, checking only for conformance with the design compliance of the Project and compliance with information given

in the Contract Documents. If the submission is large and/or requires detailed or lengthy review by the Architect, additional time may be required.

5.3.2. Architect will return to CM without review any submittals not bearing the Contractor's or CM's review stamp or not showing that it has been reviewed by the Contractor and CM.

5.3.3. Architect will make changes or notations directly on the submittal, identify such review with its review stamp, obtain and record Architect file copy and return the submittal to CM.

5.4. RE-SUBMISSION REQUIREMENTS

5.4.1. For Shop Drawings: Review returned CM and/or Architect drawings and re-submit as specified. All changes made must be identified through bubbling or other approved method.

5.4.2. For Product Data and Samples Resubmit new data and samples as required.

END OF SECTION 01330

SECTION 01360
COORDINATION (GENERAL)

1 COORDINATION OF WORK/COOPERATION

- 1.01 All Contractors are required to review, discuss and coordinate their Work with the Work of other contractors, Owner and CM with regard to sequence, timing, built-in Work and equipment, layout, location, compatibility of materials and sizes and required clearances prior to beginning the work to avoid construction delays which impact the Owner's occupancy of the facility.
- 1.02 Each Contractor
- 1.02.1 Coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
 - 1.02.2 Make provisions to accommodate items scheduled for later installation.
 - 1.02.3 Provide to all other trades all information (drawings, diagrams, templates, embedments, etc.) necessary for the coordination of the Work.
 - 1.02.4 Layout and install its Work at such time and in such manner as not to delay or interfere with the carrying forward of the Work of others.
 - 1.02.5 Verification and Acceptance of previous work
 - 1.02.5.1 As Work under each Agreement commences, the condition of preceding Work under other agreements shall be verified and accepted by each subsequent Contractor when appropriate.
 - 1.02.5.2 Report in a prompt manner any interferences, discrepancies or incompatibilities discovered to CM, whose decision as to the Contractor at fault and as to the manner in which the matter may be resolved, shall be binding and conclusive on Contractors involved. CM may direct layout/ location changes as required to make the entire work fit together. Reasonable changes of this nature will not entitle any Contractor to an increase in contract price.
 - 1.02.5.3 Verification may, at CM's discretion, include a joint review by the subsequent Contractor, previous contractor(s), and CM to note any corrective Work required, similar items affecting the Work and particularly items which prevent acceptance by the subsequent contractors.
 - 1.02.5.4 The verification review procedures and findings shall be submitted in writing by subsequent Contractors to the CM.
 - 1.02.5.5 Any corrective work necessary to satisfy requirements of the Contract Documents shall be performed promptly by the previous Contractor to prevent delay to the work under the subsequent Contracts.
 - 1.02.5.6 After corrective work is accomplished the subsequent Contractor shall furnish written acceptance of the work as noted above.
 - 1.02.5.7 CM's participation in a joint review under this paragraph shall in no event be deemed to constitute approval of any layout or other Work that fails to comply with the **Contract Documents**.
 - 1.02.6 Observation of the Work by others shall not relieve Contractor from its responsibility for coordination, supervision, or scheduling and direction of the Work.
 - 1.02.7 Failure of a Contractor to notify others and CM of a potential interference, incompatibility, or discrepancy and any failure to coordinate Work with that of others prior to installation and/or fabrication shall be at the Contractor's risk.

END OF SECTION 01360

SECTION 01370 COORDINATION DRAWINGS

1. GENERAL REQUIREMENTS

- 1.1. Contractor if required by its Work scope, shall be responsible for developing coordination drawings and participating in coordination meetings as defined herein, and shall have included the cost for such Work in its Bid Proposal.
- 1.2. Coordination Drawings shall be utilized to establish installation sequence, resolve trade coordination issues prior to installation and to make the most efficient use of space allocated for systems such as mechanical/electrical/plumbing installations without sacrifice to systems performance. This is also required to determine inter-relationships and possible interference's between all of the trades' Work and the architectural or structural features.
- 1.3. Contractors are required to attend coordination meetings as required by CM. The representative(s) from each Contractor is required to be familiar with the Work and have the expertise and authority to answer questions and make decisions and changes to its systems at these meetings.
- 1.4. The coordination drawings may also be used by Contractor as part of its required shop drawing and as-built drawing submittals.
- 1.5. Each Bidder should anticipate that each floor may require several meetings. However, in the interest of time, multiple floors or areas may be reviewed in one meeting. Development of coordination drawings will be by area and floor with order of priority established by CM.

2. COORDINATION DRAWING PROCESS

- 2.1. The Electrical Contractor, following an HVAC coordination kick-off meeting, shall immediately begin Work and prepare 1/4" scale layout drawings of all ductwork and piping. These drawings shall also show registers, grilles, diffusers, and similar features. Contractor shall include locations of all valves, dampers and shall note any items requiring access for service and maintenance as well as access doors in inaccessible ceilings. Drawings shall also show the size, layout and routing of all metal and flex ductwork, re-heat coils, terminal units, filters, and major hangers and supports. Contractor shall provide notation for diffuser boot sizes and heights and any other special features. Contractor shall provide cross sections and additional details through areas where clearances are tight and further detail as appropriate and/or required. Where piping or ductwork has external insulation, Contractor shall note or show locations and thickness. Contractor shall indicate bottom elevation of duct, pipes and equipment and elevation changes, to be measured to the lowest point including insulation and hangers where applicable.
- 2.2. In areas where no HVAC work occurs, but where other mechanical and electrical installations are installed, the Electrical Contractor will issue or note on transparencies indicating "No HVAC Work Required".
- 2.3. Within fifteen (15) working days of issuance, the Electrical Contractor shall have completed layout drawings and provide to CM. At this time, all Contractors shall attend a Coordination Kick-Off Meeting at which time the first distribution of HVAC prints is made and procedures and schedule are reviewed.
- 2.4. As layout drawings for HVAC Work for subsequent areas are completed, the Electrical Contractor shall provide prints of the completed layout drawings to CM. CM will in turn distribute prints to each required Contractor to include Plumbing, Fire Protection and Electrical Work. Respective Contractors shall then layout their own routings. Drawings shall include other major items such as valves, access panels, switch panels, pull boxes also noting items requiring access for service and maintenance, etc. as well as access doors in inaccessible ceilings.
- 2.5. Information for specific trades is required but not limited to the following:
 - 2.5.1. Plumbing - Size, layout and routing of piping, valves, boxes, supports, etc., for all utilities regardless of material size. Show or note all pipe sizes and working clearances around valves, etc. For pitched piping, identify bottom elevations at key points and at least every column line. Note thickness and location of all external insulation. Bottom elevations shall be measured to the lowest point including hangers and insulation where applicable.

- 2.5.2. Sprinkler Piping - Size, layout and routing of mains and branch piping, hanger and supports, valves, working clearances, and bottom of pipe and bottom of hanger support elevations. Sprinkler head locations shall be shown on ceiling plans. For pitched piping, identify bottom elevation at key points and at least at every column line.
- 2.5.3. Electrical - Size, layout and routing and size of conduit and wire 2" or larger for normal and emergency power distribution systems, 1-1/2" or larger for communication systems telephone, nurse call, physiological monitoring, etc., include all systems specified, boxes larger than 4" x 4" x 4", hangers, supports, and electrical fixtures including lights, speakers, detectors, sensors, cable trays, raceways, etc. Size and clearance of ceiling and above ceiling mounted items shall be noted as a depth from finished ceiling to top of fixture or top of clear area required. Provide bottom elevations of conduits and equipment. Bottom elevation shall be measured from the lowest point, including hangers.
 - 2.5.3.1. Within four (4) feet of all panels, or areas where more than 4 conduits, regardless of size, are routed or grouped together, identify an easement or right-of-way for the groups of conduit.
 - 2.5.3.2. Also show all wall mounted items located within 12" of the ceiling plane.

3. EXECUTION

- 3.1. In the preparation of all coordination drawings, 1/2" scale details as well as cross and longitudinal sections are required to fully delineate all conditions. Particular attention shall be given to the locations, size and clearance dimensions of equipment items, shafts, corridors and similar features.
- 3.2. After completion of the final coordination drawings, minor changes in duct, pipe or conduit routings that do not affect the intended function may be made as required to avoid space conflicts, when mutually agreed to by all parties involved. However, items may not be re-sized or exposed items relocated without CM's written approval. No changes shall be made by Contractors in any wall or chase locations, ceiling heights, door swings or locations, windows or other openings, or other features affecting the function or aesthetic effect of the building. If conflicts or interference's cannot be satisfactorily resolved, Contractors shall notify CM who will, in turn, obtain a decision from the Architect.
- 3.3. Other Contractors responsible for supplementary composite drawings, as indicated herein, shall make similar distribution to that described in item 1.03 Paragraph E. All trades desiring additional prints of such drawings, beyond the basic distribution indicated above, shall arrange for and pay the cost of same.
- 3.4. Record copies of final drawings shall be retained by CM and each Contractor as working reference. All shop drawings, prior to their submittal to CM shall be compared with the final drawings and developed accordingly by the Contractor responsible. Any revision to the drawings which may become necessary during the progress of the Work shall be noted to and by all Contractors and shall be neatly and accurately recorded on the record copies. Each Contractor shall be responsible for the up-to-date maintenance of its own record copies of the final drawings, and any subsequent changes thereto shall be utilized by CM and each Contractor in the development of As-Built/Record drawings described in Section 01720 of the Project Manual.
- 3.5. The HVAC drawings need not be submitted as a whole, but they shall be submitted in all cases per CM's project master construction schedule and in ample time to avoid construction delays. The coordination drawings of all trades may lack complete data in certain instances pending receipt of shop drawings, but sufficient space shall be allotted for the affected items. When final information is received, such data shall be promptly inserted on the final drawings.
- 3.6. No extra compensation will be paid for relocating any duct, pipe, conduit, or other material that has been installed without proper coordination between all Contractors involved. If any improperly coordinated Work, or Work installed that is not in accordance with the approved coordination composites, necessitates additional Work by the other Contractors, the costs of all such additional Work shall be solely borne by the Contractor responsible.
- 3.7. All changes in the Scope of Work due to revisions formally issued and approved shall be shown on that trade's final drawings and thoroughly coordinated with the other trades.

- 3.8. All Work on the coordination composite drawings shall be performed by competent draftsmen and shall be clear and fully legible. CM shall be sole judge of the acceptability of the drawings. All drawings shall be drawn dimensionally and graphically correct.
- 3.9. In general and before the first meeting the following guidelines shall be followed:
 - 3.9.1. All trades shall coordinate with the Electrical Contractor for the size, height and clearance requirements for recessed or semi recessed light fixtures, recessed speakers/detectors, and other electrical ceiling devices.
 - 3.9.2. Sprinkler heads shall be centered in the center of lay-in ceiling tiles unless approved shop drawings note otherwise.
 - 3.9.3. All elevations shall be based on height above finished floor using established benchmarks.
 - 3.9.4. Standard suspended ceiling systems require 3" minimum clearance for materials and installation.
 - 3.9.5. Review of other drawings may be necessary for special structural and suspended equipment requirements.
 - 3.9.6. All trades to hang work as high as possible in above ceiling areas, allowing access to equipment for maintenance, repairs, connections, filters and removal without demolition of other Work.
- 3.10. Coordination drawings submitted during this process are not considered shop drawing submittals. The coordination drawings may be part of the required shop drawing submittal, but are made separate from the distribution specified in this section.

END OF SECTION 01370

SECTION 01400 QUALITY REQUIREMENTS

1. DOCUMENT CONTROL PROCEDURE

- 1.1. Each Contractor is to provide CM its document control procedure to include drawing submittals and surveillance. In the absence of such a procedure, the Contractor will use the following procedure for document control.

“A log is maintained identifying the drawing revision status, issue date and distribution (internal and external). The transmittal issuing the changed documents will indicate what changes are made and indicate that the documents are approved for use. Contractor meetings include a review of approved drawings. The review is documented in the meeting minutes. Superintendent surveillance activities include monitoring Contractor drawing use.”

2. QUALITY CONTROL

- 2.1. Each Contractor is responsible to provide the Owner with a completed quality product for its Work. Each Contractor shall be responsible for any costs associated with re-testing and re-performing the Work as a result of the Contractor's poor performance or workmanship or other failure to comply with the Contract Documents.
- 2.2. All Work shall be done by persons qualified in their respective trades, and the workmanship shall be first-class in every respect. **Each Contractor is responsible for ensuring employees are appropriately trained.** All materials and equipment furnished shall be the best of their respective kinds for the intended use and unless otherwise specified, same shall be new and of the latest design.
- 2.3. The Contractor shall provide CM, Owner and Architect access to the Work in preparation and progress wherever the Work is located at all reasonable times.

Note: CM and the Architect will have the authority to reject Work that does not conform to the Contract Documents or may require special inspection or testing, whether or not such Work is to be then fabricated, installed or completed. The Architect shall make all decisions with respect to questions concerning the quality or fitness of materials, equipment and workmanship.

- 2.4. Failure by a Contractor to conduct its operations, means and methods and coordinate proper sequencing of the Work may cause the Troy School District to withhold payment or any other means deemed necessary to correct non-conforming Work.

3. NOTIFICATIONS AND CORRECTIONS OF NON-CONFORMANCE

- 3.1. CM and the Architect may conduct observations/evaluations of the Contractor's Work. CM and/or Architect's reviews do not relieve the Contractor from compliance with the Contract Documents or necessary corrections for deficiencies thereof. Contractors whose Work does not meet the standards set by the Contract Documents will be notified by representatives of the CM using a Corrective Action Report. The Contractor, upon receipt of the Corrective Action Report, shall complete and return the form and provide the corrective actions necessary in a timely manner as outlined.
- 3.2. The **Corrective Action Report (CAR) (CON 18.2)** is in Section 01600 Forms.

4. CONTRACTOR PERFORMANCE EVALUATION

- 4.1. CM will be evaluating Contractor's performance and will provide feedback during the life of the Project, on Contractor's performance, for the purpose of improving CM's Contractor selection process for future project endeavors.
- 4.2. This Contractor Performance Evaluation form is generated by the CPS Database.

END OF SECTION 01400

SECTION 01450
TESTING AND INSPECTION SERVICES

1. CONTRACTOR'S RESPONSIBILITIES

- 1.1. The testing firm will report directly to the Troy School District. Copies of test and inspection reports will be furnished to the appropriate Contractors. The laboratory and its representatives will be instructed to promptly call to the attention of the Contractor any instance of non-compliance with the requirements of the Contract Documents. Failure to so notify the Contractor shall not relieve the Contractor of any of its responsibilities for compliance or making good workmanship or materials which are not in compliance with the requirements of the Contract Documents.
- 1.2. Each Contractor shall cooperate with the testing firm and provide labor to assist and lifts, ladders or other means to permit full access for testing firm and to assist with sample preparations where applicable.
- 1.3. The Contractor is responsible to pay the cost of additional testing in the event that additional testing of the Contractor's materials, installation, and other Work is required by the independent testing laboratory because of test results not in compliance with the Contract Documents and/or additional testing required as a result of Contractor's negligence or poor workmanship.

2. CONTRACTOR RESPONSIBILITIES

2.1. CONTRACTOR SHALL:

- 2.1.1. Notify CM sufficiently in advance of operations (24-hours minimum) to allow for laboratory assignment of personnel and scheduling of tests.
 - 2.1.1.1. When tests or inspections cannot be performed after such notice, reimburse Troy School District for all expenses incurred arising out of or resulting from Contractor's negligence.
- 2.1.2. When the Contractor is providing the testing and prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered engineer and responsible officer. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards (NBS) during most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.

3. RE-TEST RESPONSIBILITY

- 3.1. Where the results of required inspections, tests, or similar services prove unsatisfactory and do not indicate compliance with the requirements of the Contract Documents, the re-tests shall be the responsibility of the Contractor regardless of whether the original test was the Contractor's responsibility.
- 3.2. Re-testing of Work revised or replaced by the Contractor is the Contractor's responsibility where required tests were performed on original Work. All costs and fees for re-testing shall be paid by the Contractor.
- 3.3. Schedule delays and costs which are the result of non-conforming work or remedy will be the responsibility of the offending Contractor.

END OF SECTION 01450

SECTION 01500 INTERIM LIFE SAFETY PLAN

1. PURPOSE AND POLICY

- 1.1. **PURPOSE:** To provide interim life safety measures during a construction Project. To protect Owner personnel, visitors, [patients] and property from fire and injury during remodeling or construction. This policy is used wholly or in conjunction with the safety program in the Project Manual.
- 1.2. **POLICY:** During a construction Project it shall be the responsibility of the Director of Facilities (or designee) and CM (through trade Contractors) to maintain compliance with the Life Safety Code NFPA Section 101. Compliance will be through the implementation of the following:

2. NOTIFICATIONS

- 2.1. Contractor shall communicate with and coordinate through CM for all changes to Life Safety measures including changes to: egress, the fire suppression system, the fire alarm system or any other Life Safety related changes to the construction site. Contractor is required to simultaneously notify the appropriate Owner personnel / departments: Owner's PM, Security, Facilities, Safety, Local and/or state fire, 911 emergency services, etc.
- 2.2. Advanced notification using the appropriate form shall be submitted not less than twenty-four (24) hours in advance of the work. Forms can be obtained through CM.

SHUTDOWN REQUEST TYPE	FORM NAME [VERIFY WITH OWNER'S REQUIREMENTS]	SUBMIT FORM IN ADVANCE OF PROPOSED WORK BY:	SUBMIT FORM TO:
CHANGE IN EGRESS:	Submit egress plan of existing exiting and proposed change	3 Weeks	CM; CM to schedule a review meeting with the Owner and Architect for final approval
Change in Fire Suppression	Sprinkler Shut-Down Request	1 Week	CM for initial review 5 days prior; upon approval from CM simultaneously submit to CM, Safety, Security, OTHERS
Change in Fire Alarm	Fire Alarm Shut-Down Request	1 Week	CM for initial review 5 days prior; upon approval from CM simultaneously submit to CM, Safety, Security, Owner's Insurance Agency, State and/or Local Fire Department, ,VERIFY OTHERS
Mechanical Piping, HVAC or Electrical Shut-Down	Utility Shut-Down Request	1 Week	CM for initial review 5 days prior; upon approval from CM simultaneously submit to CM, Safety, Facilities, Security, OTHERS

3. INTERRUPTION OF EXIT - EGRESS CORRIDOR

- 3.1. Should construction of temporary structures for egress/exit be necessary:

- 3.1.1. Contractor will review with and obtain approval from CM any changes to the means of egress. This review and approval shall include the Owner and Architect to confirm appropriate travel distances to exits are maintained/established.
- 3.1.2. Contractor shall obtain approval from the appropriate agency for any planned temporary exiting structure prior to construction/implementation.
- 3.1.3. All Contractors shall be responsible for maintaining temporary egress/exits:
 - 3.1.3.1. Each Contractor is responsible to protect, kept free of restrictions or obstructions, and maintain in full use all entrances to and exits from existing buildings and the construction site at all times. The safety and well-being of all persons must be of prime concern.
 - 3.1.3.2. Contractor shall maintain and not disturb any temporary construction, including stairs, ramps, protected walkways, railings, lights and direction signage as required to maintain adequate exiting from the existing building.
- 3.2. Should an alternate egress route be necessary:
 - 3.2.1. Contractor shall submit the appropriate forms to CM so all affected departments will be notified. Contractor shall not begin any work associated with a change in egress until the Owner has verified its internal departments are notified and prepared for the change.
 - 3.2.2. Contractor shall install and maintain temporary exit signage and Contractor shall install and maintain temporary directional signage prior to starting Work associated with the change in egress..
- 4. INTERRUPTION OF THE SPRINKLER SYSTEM
 - 4.1. Refer to the above matrix for advanced notification times and shut-down request distribution.
 - 4.2. Priority will be given to localized interruption of these systems on first shift Monday through Friday when full staff is available when any shut down is necessary:
 - 4.3. Contractor will provide an organized fire watch until the system is fully functional.
- 5. INTERRUPTION OF FIRE/SMOKE DETECTION AND ALARM SYSTEM
 - 5.1. Refer to the above matrix for advanced notification times and shut-down request distribution.
 - 5.2. Contractor shall maintain the operation of the total fire detection/alarm during the construction.
 - 5.2.1. It is acceptable for the Contractor to place a thin plastic cover over the detector head during high dust producing activities with Contractor's prompt removal upon completion of the work.
 - 5.2.2. At all other times the system will be returned to normal operating status.
 - 5.3. Should the fire/smoke detectors and alarms systems be interrupted:
 - 5.3.1. Contractor will provide an organized fire watch until the system is fully functional.
 - 5.3.2. Temporary alarm pull stations will be established as a minimum should the interruption last more than twenty-four (24) hours.
- 6. CONSTRUCTION SITE MAINTENANCE
 - 6.1. For interior construction. Contractor **shall**:
 - 6.1.1. Refer to the above matrix for prior notifications.
 - 6.1.2. Maintain existing Fire/Smoke Barriers and compartments.
 - 6.1.3. Provide and maintain temporary partitions adjacent to functioning departments that are a UL rated 2-hour assembly and smoke/dust tight and non-combustible. Provide documentation of the UL rated assembly type to CM prior to constructing this Work.

- 6.1.4. Maintain temporary enclosures, fire-rated dust curtains, and all other necessary materials and equipment as required to prevent introduction of dust, dirt or debris into occupied portions of the building.
 - 6.1.5. Coordinate locking of the construction area with CM and the Owner.
- 6.2. For exterior construction - Contractor shall:
 - 6.2.1. Maintain site clearance for access to the external fire department connections.
- 7. REFERENCES
 - 7.1. All current Life Safety codes

END OF SECTION 01500

SECTION 01520 TEMPORARY CONSTRUCTION

1 SUMMARY

1.01 This Section describes the following requirements including:

- 1.01.1 Project Signage
- 1.01.2 Snow Removal
- 1.01.3 Security
- 1.01.4 Temporary Field Office, Facilities and Parking
- 1.01.5 Temporary Fencing
- 1.01.6 Temporary Toilet Facilities
- 1.01.7 Drinking Water/Temporary Water
- 1.01.8 Roof Protection
- 1.01.9 Scaffolding
- 1.01.10 Water Control
- 1.01.11 Temporary Material Hoist/Elevator
- 1.01.12 Fire Precautions and Protection
- 1.01.13 Noxious Odors and Fumes
- 1.01.14 Temporary Stairs, Ladders, Ramps, Runways, and Barricades
- 1.01.15 Temporary Electrical Power and Light
- 1.01.16 Temporary Heating and Weather Protection
- 1.01.17 Temporary Enclosures

2 CONSTRUCTION FACILITIES

2.01 PROJECT SIGNAGE

- 2.01.1 The CM shall provide a project sign. No other signs or advertising shall be displayed on the premises without the approval of the Architect, Owner, and CM. This does not exclude the posting of required trade notice and cautionary signage by Contractors.

2.02 SNOW REMOVAL

- 2.02.1 Contractors performing Work under exposed conditions shall remove snow and ice for the protection and execution of their Work. Keeping public traffic areas and circulation routes free of snow shall be the responsibility of the CM/DESIGNATED CONTRACTOR.

2.03 SECURITY

- 2.03.1 The services of a security guard(s) will not be provided by CM.
- 2.03.2 Each Contractor, at its own cost and expense, may provide security guard, protective service or other means of site security as it deems necessary.
- 2.03.3 Contractors shall advise CM of any theft or damage which might delay the execution of the Work and furnish the Owner and CM with a copy of any theft report filed with local, county or state agencies.
- 2.03.4 Neither CM nor Owner assumes any responsibility for loss, theft or damage to the Contractor's materials or for damage to Work in place before the completion of the construction. In the instance of any such loss, theft or damage, the Contractor shall be responsible to renew, restore or

remedy the Work, tools, equipment and construction in accordance with requirements of the Contract Documents without additional cost to CM.

- 2.03.5 CM is not responsible for damage, liability, theft, casualty or other hazard to the automobiles or other vehicles, nor to injury, including death, to occupants of automobiles or other vehicles on the Owner's property.
- 2.03.6 CM may establish additional security policies and procedures. All Contractors will be required to cooperate with CM in implementing these procedures.
- 2.03.7 Site-parked equipment, operable machinery and hazardous parts of the new construction subject to mischief and accidental operation shall be inaccessible, locked or otherwise made inoperable when left unattended.

2.04 TEMPORARY FIELD OFFICE, FACILITIES AND PARKING

- 2.04.1 The Owner may designate an area for construction trailers. Placement and scheduled duration shall be coordinated by CM. Each Contractor is responsible to verify that all field offices, trailers and storage sheds shall be in accordance with the local Fire Marshal having jurisdiction. Each Contractor shall arrange and pay for its own telephone hookup and use. Each Contractor shall arrange and pay for its own temporary electrical hook-up, water and toilets. The Contractor shall pay for all power used for the Contractor's temporary field office and temporary electrical service. Construction personnel will be allowed to use the existing Owner parking facilities. Designated Contractors will be allowed to have on-site construction trailers. Construction trailers shall be limited to 10' x 30' or smaller.
- 2.04.2 Contractors shall maintain the use of designated space for offices and sheds. This includes removal of weeds, debris, trash and clean-up of the area after removal of such temporary structures.
- 2.04.3 Temporary field offices and sheds shall not be used for living quarters. .
- 2.04.4 Offices and sheds shall be of suitable design, maintenance and appearance, and meet the approval of CM and all applicable local codes and ordinances.
- 2.04.5 All temporary offices and sheds including foundations, must be removed within ten (10) days of written notice from CM including restoration of grade. Structures not removed in a timely manner will be removed by CM at Contractor's expense.
- 2.04.6 If a temporary office is built in the building, it must be fire treated in accordance with Section 01510, Fire Precautions and Protection.

2.05 TEMPORARY FENCING

- 2.05.1 The DESIGNATED CONTRACTOR shall provide temporary fencing with gates for required access and remove same at the completion of the Project.
- 2.05.2 The Contractors shall repair or replace fencing damaged as a result of its operation. Contractors shall remove and replace fencing and gates required to provide access for oversized items.
- 2.05.3 Contractor's personnel are not allowed to work outside of the construction fence without permission of CM.

2.06 TEMPORARY TOILET FACILITIES

- 2.06.1 The CM shall provide and maintain temporary toilet facilities for the construction of the Project. The use of the Owner's existing permanent facilities is as described in Section 01140 Use of Premises.
- 2.06.2 During renovation activities, CM may obtain, through the Owner, permission to use designated toilet facilities within the contract boundaries for construction use. The use of the Owner's existing permanent facilities outside the construction boundaries is strictly not allowed.

2.07 DRINKING WATER/TEMPORARY WATER

- 2.07.1 The Owner will pay for water used on this. Each Contractor shall be responsible to provide containers, paper cups, ice, hoses, etc. for its needs.
- 2.07.2 Immediately after award of the Agreement, the Mechanical Contractor shall furnish, install, maintain and subsequently remove a temporary hookup to the Owner's potable water system where directed by CM for construction purposes. The Contractor shall provide all temporary piping and approved backflow prevention as necessary for distribution from the source. Distribution of temporary water will be paid for by Contractors requiring same. A minimum of two (2) hose bibs shall be provided by the Mechanical Contractor as directed by CM.

2.08 ROOF PROTECTION

- 2.08.1 Contractors and their Subordinate Parties, shall be responsible for damages to roofing, sheet metal and roof structure while performing Work. The Roofing Contractor will perform the repair Work at the expense of the Contractor responsible for the damage.
- 2.08.2 All Contractors will protect adjacent existing roof surfaces while performing their Work. No construction materials will be allowed to be placed on existing roof surfaces without prior approval of the Owner through CM.

2.09 SCAFFOLDING

- 2.09.1 Each Contractor is responsible for providing and maintaining any and all ladders, scaffolds, and other staging as required to complete all work. All such ladders, scaffolds and staging equipment shall be erected, maintained and subsequently removed by each Contractor in accordance with all applicable safety laws, rules and regulations.

2.10 WATER CONTROL

- 2.10.1 All pumping, bailing or well point equipment necessary to keep excavations and trenches free from the accumulation of water during the entire excavating and backfilling progress of the Work shall be the responsibility of the Contractor performing said excavations and trenches due to its scope of Work.
- 2.10.2 Each Contractor shall be responsible for keeping the building at grade and below free from water from the time the building backfill is completed until the building is watertight.
- 2.10.3 Dispose of water in such a manner as will not endanger public health or cause damage or expense to public or private property. Abide by the requirements of any public agencies having jurisdiction.

2.11 TEMPORARY MATERIAL HOIST/ELEVATOR

Each Contractor is responsible for its own hoisting and material/ equipment movement costs as required to complete the Work under its Agreement.

- 2.11.1 CM may operate and maintain a permanent elevator until such time as all material hoisting requirements have been met. Elevator requirements in excess of the capacity or size of this elevator shall be provided by each Contractor at its expense. This elevator shall not be used for the placement of concrete, the transporting of workers, or other means inconsistent with its use as directed by CM. The operating cost for all overtime use of the elevator shall be paid by the Contractor requiring such services.
- 2.11.2 The Elevator Contractor shall be obligated to extend warranty and guarantee periods on any permanent equipment used prior to Substantial Completion.
- 2.11.3 Transportation of construction materials through the Owner's facility shall be accomplished in accordance with the requirements described in Section 01140 Use of Premises in such a manner so as to:
 - 2.11.3.1 Not damage any of the existing facility.
 - 2.11.3.2 Not impair the Owner's use of the facility.

2.11.3.3 Not create any type of mess or additional cleaning requirements in Owner occupied areas.

2.11.4 The Owner's lifting equipment is not available for the unloading, conveying or installation of Contractor's materials.

3 FIRE PRECAUTIONS AND PROTECTION

3.01 All Contractors and their Subordinate Parties shall

3.01.1 Assume full responsibility and take all necessary precautions to guard against and eliminate all possible fire hazards and to prevent damage to any construction work, building materials, equipment, temporary field offices, storage sheds, and all other property, both public and private.

3.01.2 Conspicuously post the location of the nearest fire alarm pull box and the telephone number of the local fire department within the field offices and on the construction site adjacent to its Work

3.01.3 Take precautions to prevent fire hazards in accordance with all fire protection and prevention laws and codes. No open fires shall be permitted.

3.01.4 Shall not be permitted to perform welding, flame cutting, or other operations involving the use of flame, arcs, or sparking devices without submitting a Hot Work Permit to CM a minimum of 24 hours prior or without adequate protection and shielding. Hot Work Permits can be obtained through CM. All combustible and flammable material shall be removed from the immediate area of the hot work. Material shall be protected with a fire resistant tarpaulin to prevent sparks, flames, or hot metal from reaching materials.

3.01.4.1 Only fire resistant tarpaulins shall be used on this Project.

3.01.5 Provide the necessary personnel and firefighting equipment to effectively control incipient fires resulting from the hot work.

3.01.6 Provide its own fire extinguishers in the immediate area of the Work.

3.01.7 Review the entire Project at least once a week to make certain it has adhered to the conditions and requirements set forth herein.

3.01.8 Shall not bring into building at any one time more than a one day supply of flammable liquids such as oil, gasoline, paint or paint solvent

3.01.8.1 All flammable liquids having a flash point of 110 degrees F or below, which must be brought into any building, shall be confined to Underwriter's Laboratories' labeled safety cans.

3.01.8.2 The bulk supply of all flammable liquids shall be detached at least 75 feet from the building and from yard storage of building materials.

3.01.8.3 Spigots on drums containing flammable liquids are prohibited on the project site. Drums are to be equipped with approved vent pumps.

3.01.9 Not store or leave overnight within the confines of the permanent building any combustible materials.

3.01.9.1 This includes all internal combustion engines using gas or fuel oil.

3.01.9.2 Hoisting of flammable or combustible materials to the roof shall only be in quantities as needed for immediate use

3.01.10 Agree that, in the event of fire, all its workers anywhere on site will assist in extinguishing the fire

3.01.11 Coordinate with the Owner and CM the permanent fire protection water supply, fire extinguishing equipment, shut down and tie-ins between new and existing fire protection systems shall be installed at the earliest possible date.

- 3.01.11.1 As each sprinkler system is completed and placed in service, the control valve shall be sealed. Permission to break seals and close sprinkler valves shall be given only by CM with approval of the Owner.
 - 3.01.12 Not place shanties of combustible construction inside of any structure.
 - 3.01.12.1 Such shanties shall be detached at least seventy-five (75) feet from the building or as directed by CM with approval of the Owner.
 - 3.01.12.2 Totally incombustible shanties may be, if approved in writing by CM, located inside of the structure
 - 3.01.12.3 Use of only Underwriter's Laboratory approved heaters and/or stoves is permitted in field offices or storage sheds and they shall have fire resistive material underneath and at the sides near partitions and walls. Pipe sleeves and covering shall be used where stove pipe runs through walls or roof
- 3.02 FIRE EXTINGUISHERS
 - 3.02.1 Fire extinguishers shall be "all purpose", and not a water type, to meet the approval of the Fire Underwriter's Laboratory, and will be inspected at regular intervals and recharged if necessary.
 - 3.02.2 In areas of flammable liquids, asphalt or electrical hazards, extinguishers of the 15 lb. carbon dioxide type or 20 lb. dry chemical type shall be provided
 - 3.02.3 **CM** will provide and maintain in working order at all times during construction not less than a fire extinguisher for each 3000 sq. feet with travel distance not to exceed 100 feet.
 - 3.02.4 All other required extinguishers shall be provided by the Contractor creating such hazard
- 3.03 NOXIOUS ODORS AND FUMES
 - 3.03.1 Combustion engine equipment, tar kettles and any other items causing noxious odors or fumes, including diesel powered equipment, will NOT be allowed in the building or near air intake louvers or building entrances and exits. If intake louver locations are in doubt, consult with CM.
- 4 TEMPORARY STAIRS, LADDERS, RAMPS, RUNWAYS, AND BARRICADES
 - 4.01 Each Contractor is to provide and maintain all necessary temporary stairs, ladders, ramps, and runways to facilitate conveyance of workers, materials, tools, and equipment for proper execution of its Work. All protection and safety barricades, devices, covers, and all other necessary items shall be provided by each Contractor as it relates to the safe conduct of its Work and protection of people and property in its Work area in accordance with applicable law.
 - 4.02 Any Contractor or Subordinate Party performing excavation Work shall be responsible to furnish, install and maintain temporary barricades and/or fencing of all open excavations until such time as the backfilling is complete. Flasher lights shall be provided on barricades and fencing by the Contractor as requested by CM and in accordance with applicable law. As a minimum, all barricades across roads and walks shall have lights on them in working condition.
 - 4.03 Prior to the removal of all shoring and forms, the DESIGNATED CONTRACTOR shall be responsible for temporary protection at the building floor perimeters and openings. Immediately after the removal of all shoring and forms, the DESIGNATED CONTRACTOR shall furnish, install, and maintain all necessary temporary protections at the building floor perimeters and openings. Protection shall be OSHA 29 CFR Part 1926.502 (B) "Guardrail Systems" and shall include but not be limited to two line rails and toe boards. Each Contractor that disturbs any temporary protection for its Work is responsible to reinstall to its original condition the guardrail or barricade system for the protection of the workers and others until final construction of perimeter exterior wall and/or shaft openings is completed. All other protection and safety barricades, devices, covers, etc., including those at all roof areas, shall be provided by the DESIGNATED CONTRACTOR] Contractor as it relates to the safe conduct of its Work in accordance with all local, state and federal law, rules and regulations and the requirements of the Contract Documents and shall be in accordance with the most stringent requirements.

- 4.04 The DESIGNATED CONTRACTOR shall provide temporary guardrails at the building floor perimeters, interior shafts, all roof areas, or other openings, immediately after the erection of the steel or precast frame and with the installation of metal or decking. Protection shall be OSHA 29 CFR Part 1926.502 (B) "Guardrail Systems" and shall include but not be limited to two line rails and toe boards. This temporary protector shall be left in place after completion of the steel or precast frame for the use of all other Contractors. The DESIGNATED CONTRACTOR shall maintain and remove said guardrails and patch concrete. Each Contractor that disturbs any temporary protection for its Work is responsible to protect the area during its Work and to reinstall to its original condition the guardrail or barricade system for the protection of the workers and others until final construction of perimeter exterior wall and/or shaft openings is completed. All other protection and safety barricades, devices, covers, etc. shall be provided by this Contractor as it relates to the safe conduct of its Work in accordance with all local, state and federal regulations and the requirements of the Contract Documents, and shall be in accordance with the most stringent requirements.
- 4.4. Each Contractor and its Subordinate Parties shall provide and maintain in good repair barricades, overhead protection, guard rails, etc., as required by law or necessary for the protection of the public and personnel engaged in the Work from hazards incidental to performance of the Work. Contractor shall do everything necessary to protect the Owner's employees, the public and workers from injuries and to protect vehicles and other property from damage.

5. TEMPORARY ELECTRICAL POWER AND LIGHT

5.1. Electrical Energy Costs

- 5.1.1. The Owner will pay for electrical energy to operate temporary electrical power and lighting for the duration of the project at designated locations. Temporary power will be provided free of charge.

5.2. Power Source

- 5.2.1. The Electrical Contractor shall provide, install, and pay for labor, equipment and materials required to make connections to the Owner's power source and to provide temporary electrical power and light distribution. The Electrical Contractor shall coordinate the location of the electrical power and lighting as directed by CM.
- 5.2.2. The Electrical Contractor will provide for the CM's construction trailer a 120/208 volt (or 120/240 volt), 100 ampere single phase power source. The cost of hook up and removal of temporary electrical service to other contractor's trailer shall be each Contractor's responsibility.
- 5.2.3. Protection shall be provided for the power supply source complete with disconnect switch and other required electrical devices.

5.3. Rules and Regulations:

- 5.3.1. All temporary equipment and wiring for power, lighting and distribution requirements shall conform to OSHA/NFPA requirements and be in accordance with applicable provisions of governing laws, codes, and ordinances.
- 5.3.2. All temporary wiring and distribution equipment shall be maintained so as not to constitute a hazard to persons or property.

5.4. Temporary Power Distribution:

- 5.4.1. The Electrical Contractor will provide and maintain temporary power distribution as follows:
- Construction power shall be 120/208 volts, 3 phase, 4 wire plus ground. Provide the following outlets together with feeders, grounding, protective devices and ground fault interrupting devices.
- 5.4.1.1. Power centers - on each floor of the new building, provide a minimum of two (2) power centers or not less than one (1) per 10,000 s.f. rated not less than 100 amperes at 120/208 volt, 3 phase. 4 wire plus ground. Within the remodeled areas, provide at least one (1) additional similarly rated power center. Locate the power centers such that each will serve approximately equal areas and as far as possible, each be in the center of the respective area served.

- 5.4.1.2. 120 volt duplex outlets - Provide weatherproof, G.F.I. protected, 20 ampere grounded outlets at a minimum rate equal to 1 - duplex outlet per 400 square feet. Outlets may be grouped in clusters of up to six duplex types with corresponding pro-rated increase in area served, provided that every portion of the construction and remodeled premises can be reached from the nearest outlet using a flexible cord no more than 50 feet in length.
- 5.4.2. As partitions are erected, locations of power distribution points shall be added or relocated.
- 5.4.3. Ground Fault Circuit Interrupter (GFCI) protection will be provided on all temporary power receptacles and, where possible, directly on the circuit breaker supplying temporary power as referenced in NEC 305-6(a).
- 5.4.4. The assured equipment grounding conductor program is only to be used on circuits greater than 20 amps as referenced in NEC 305-6(b).
- 5.5. Temporary Electrical Light Distribution:
 - 5.5.1. The Electrical Contractor shall provide and maintain temporary electrical light distribution as follows:
 - 5.5.1.1. Lighting shall be achieved using 120 volt guarded incandescent fixtures, or other suitable fixture types, to Federal or State OSHA required minimum levels of illumination.
 - 5.5.1.2. 120 volt temporary lighting as required in interior work areas. In addition to these minimum requirements provide adequate security lighting at guarded entrances outside storage areas, parking areas, and in areas of Contractor's and Architect's field offices and sheds.
 - 5.5.2. As partitions are erected or other interferences which hamper achieving the minimum levels of illumination, locations of lighting distribution points shall be added or relocated.
 - 5.5.3. Task lighting in addition to OSHA required lighting shall be provided by each Contractor.
- 5.6. Temporary Power and Light for Special Conditions:
 - 5.6.1. Special conditions for temporary electrical power and lighting required by others shall be provided as follows:
 - 5.6.1.1. Each Contractor requiring service of capacity or characteristics other than specified must make arrangements with the Electrical Contractor and pay for their own installation, removal, and service.
 - 5.6.1.2. Where 3 phase power is required, the Contractor must pick up service at the distribution panel located outside the building addition.
 - 5.6.1.3. The necessary grounded portable cords, lamps, light-stands, and fuses from the distribution outlets to points of use shall be provided by each Contractor to suit its own requirements.
 - 5.6.1.4. Temporary power cannot be used for welding operations.
- 5.7. Servicing of Temporary Power and Lighting:
 - 5.7.1. The Electrical Contractor shall be responsible for the following:
 - 5.7.1.1. Servicing, repairing and rearrangement of service equipment, temporary power, temporary lighting, and re-lamping.
 - 5.7.1.2. Removal and disposal of temporary electrical power and lighting at completion of the Project or when so directed by CM and repair of damage caused by installation or removal.
- 5.8. Permanent Electrical Power and Lighting:

- 5.8.1. When permanent electrical power and lighting systems are in operating condition, they may be used for temporary power and lighting for construction purposes provided the Electrical Contractor:
 - 5.8.1.1. Obtains the approval of the Architect and/or Owner through CM.
 - 5.8.1.2. Assumes full responsibility for operation of the entire power and lighting systems.
 - 5.8.1.3. Verifies that warranty dates are established prior to usage of equipment and lamps.
 - 5.8.1.4. Pays costs for operation, maintenance, and restoration of the systems.
- 5.8.2. As permanent power and lighting becomes available, these systems will generally supplant the appropriate portions of the temporary installation.

6. TEMPORARY HEATING AND WEATHER PROTECTION

- 6.1. Temporary heating requirements during the course of construction shall be divided into two categories as follows:
 - 6.1.1. Cold weather protection.
 - 6.1.2. Temporary heating.
- 6.2. Cold Weather Protection:
 - 6.2.1. Heating required during the construction period prior to enclosure of the building shall be classified as "cold weather protection."
 - 6.2.2. Each Contractor shall provide temporary heating and protection, necessary to allow its Work to continue during cold weather to meet the project milestone dates prior to building enclosure, including:
 - 6.2.2.1. The heating of materials (such as water and aggregate) as well as space heating for protection of newly placed or built construction at required temperatures (but not lower than 50 degrees F) and for the time specified.
 - 6.2.2.2. Fire retardant tarpaulins and other materials used for temporary enclosures.
 - 6.2.3. Each Contractor shall provide plan to allow Work to continue without regard to temperature.
 - 6.2.4. Heat shall be provided by smokeless UL approved portable unit heaters, using fuel of types and kinds approved by Underwriter's Laboratories, Factory Mutual, and the Fire Marshal.
 - 6.2.4.1. The Contractor shall provide fuel, power, maintenance, and attendance required for operation of portable heaters.
 - 6.2.4.2. Interior or exterior surfaces damaged by the use of portable heating units shall be replaced with new materials at the responsible Contractor's expense.
 - 6.2.5. It shall be the responsibility of each Contractor to protect its own Work.
- 6.3. Temporary Heating:
 - 6.3.1. Daily construction heat required after the building is enclosed shall be classified as "temporary heating" and will be the responsibility of the Mechanical Contractor to install and maintain.
 - 6.3.2. The building or buildings or any portions thereof shall be considered enclosed when in the opinion of CM:
 - 6.3.2.1. The exterior wall system and temporary interior wall enclosures are in place.
 - 6.3.2.2. Openings in exterior walls are covered to provide reasonable heat retention.
 - 6.3.2.3. The building is ready for interior drywall, masonry and plastering operations.
 - 6.3.2.4. The permanent roof is substantially installed.

The CM shall provide and maintain the temporary interior wall enclosures. If the exterior wall system is not complete in time to provide building enclosure of a portion of the new structure as scheduled, the CM shall provide and maintain temporary exterior wall enclosures of polyethylene and, in addition to exercising all other rights and remedies under the Contract Documents and law, CM shall be entitled to deduct the cost of such enclosures from the moneys due or to become due the Contractor(s) responsible for failure to meet said schedule.

- 6.3.3. In areas of the building or buildings where Work is being conducted, the temperature shall be maintained as specified in the various sections of the specifications, but not less than 50 degrees F for interior rough-in and not less than 60 degrees F during finishes installation. The temperature shall not be allowed to reach a level that will cause damage to any portion of the Work, including materials stored in the building, which may be subject to damage by low temperatures.
- 6.3.4. Until the permanent heating system, or suitable portion thereof, is in operating condition, provide sufficient and UL approved space heaters of suitable capacity to maintain required temperatures in areas where work is being conducted and materials are stored. Include all necessary maintenance, venting and attendance for this temporary heating to meet all applicable laws, rules and regulations.
- 6.3.5. When the permanent heating system, or a suitable portion thereof, is in operating condition, the system may be used for temporary heating, provided the Electrical Contractor:
 - 6.3.5.1. Obtains approval from CM in writing for its use and any special provisions required for its temporary operation.
 - 6.3.5.2. Assumes full responsibility for the entire heating system until final acceptance of the system by the Owner.
 - 6.3.5.3. Uses supply only, not return if temporary heating utilizes the building's ductwork system.
 - 6.3.5.4. Pays all costs for maintenance, attendance and restoration to "like new" condition of the system including final cleaning of equipment and ductwork and all necessary touch-up painting.
 - 6.3.5.5. Turns over satisfactory evidence to CM showing the extended warranties from manufacturers and proper maintenance procedures.
 - 6.3.5.6. Provides and maintains temporary filters, boxes and other parts used for the temporary condition and replaces same with the new permanent filters at time of occupancy consistent with the warranty provisions. The Electrical Contractor shall pay the cost of extending warranty and guarantee periods on any permanent equipment used prior to substantial completion.
- 6.3.6. Electrical power required for temporary heating will be furnished free of charge. The installation and service of the necessary temporary electrical feeders will also be the responsibility of the Electrical Contractor.

6.4. TEMPORARY ENCLOSURES

- 6.4.1. The Carpentry Contractor (or as specified in the Work Scopes) shall provide temporary (insulated) weather-tight closures of openings in exterior surfaces to provide acceptable working conditions and protection for materials, to allow for temporary heating, and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.
- 6.4.2. The Roofing Contractor (or as specified in the Work Scopes) shall provide temporary roofing as required to provide and maintain a watertight enclosure during construction.
- 6.4.3. The Drywall Contractor (or as specified in the Work Scopes) shall provide temporary partitions and ceilings as required to separate Work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas and to prevent damage to Owner's facilities and equipment.

END OF SECTION 01520

SECTION 01530
FIELD ENGINEERING AND LAYOUT

1 LAYOUT OF THE WORK; Each Contractor shall

- 1.1. be responsible for the layout and engineering of its own Work from the established points and lines given by a registered surveyor employed by CM and to coordinate with all other trades.
- 1.2. be responsible for detailed and accurate layout of its own and its Subordinate Parties' Work to dimension from the principal lines.
- 1.3. make provisions to preserve all control points, such as monuments, stakes, bench marks or other datum points and shall replace at its own cost any of these which might be lost or displaced through its neglect.
- 1.4. examine the conditions under which the Work is to be installed, shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Any errors, inconsistencies, omissions, discrepancies or conditions detrimental to proper performance of the Work that are discovered shall be reported to CM at once. Contractors are not to proceed until the required corrections are accomplished.

2. Verification and Documentation

- 2.1. The exactness of grades, elevations, dimensions, or locations given on any Drawings issued by Architect or the work installed by other contractors, is not guaranteed by Owner or CM.
- 2.2. In all cases of interconnection of its Work with existing or other Work, it shall verify all dimensions relating to such existing or other Work. Any errors due to the Contractor's failure to verify all such grades, elevations, dimensions, or locations shall be promptly rectified by the Contractor without any additional cost to the Owner or CM..
- 2.3. As the Work progresses, the Contractor shall prepare lay out drawings showing the exact locations of Work under its Contract as a guide to all trades. Prior to any installation, the separate Contractors shall exchange layout drawings and coordinate the Work and be subject to verification by all subsequent Contractors.
- 2.4. Each Contractor shall be responsible to take such field measurements as may be required to determine the size of ordered material. In the event "guaranteed dimensions" are required, the Contractor shall promptly advise other Contractors through CM by use of drawings, templates or mock-ups of the required conditions.
- 2.5. All Work, and in particular, piping, ducts, conduit and similar items, shall be neatly and carefully laid out to provide the most useful space utilization and the most orderly appearance. Except as otherwise indicated or directed, piping and similar Work shall be installed as close to above ceiling floor slabs and walls as conditions reasonably permit, located to prevent interference with other Work or with the use of the spaces. Before Contractor installs a valve in an exposed location, it must make all efforts to install it in an accessible, concealed location. Contractors shall carefully plan the layout and review any questionable installations with CM.
- 2.6. The Owner or CM may utilize a registered land surveyor to verify alignment and layout of certain portions of the Work. If that Work is out of tolerance or incorrect, the installing Contractor will be responsible for prompt correction of the Work to comply with the Contract Documents, along with all expenses incurred by Owner or CM in such verification process, including, but not limited to, the cost for the surveying services, as well as the additional time expended by CM personnel at standard billing rates.

END OF SECTION 01530

SECTION 01540 CUTTING AND PATCHING

1 INSPECTION

- 1.01 Before cutting, examine surfaces to be cut, including elements subject to damage or movement during cutting and patching work. Report any unsatisfactory or questionable conditions to CM in writing.
- 1.02 Before proceeding, meet at the site with CM and the parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference, conflict and possible effects on the Owner's existing operations. Coordinate procedures, temporary support, methods of dust and water protection, etc. and resolve potential conflicts before proceeding.
- 1.03 When working in and around existing buildings, if any hazardous material is encountered or is suspected to be present, immediately notify CM and stop work in this area as described in Section 00840 Hazardous Materials until further direction is given by CM or the Owner.

2 PREPARATION

- 2.01 Provide adequate temporary support to assure the structural value and integrity of the affected portion of the work. Where specified or required, submit temporary support methodologies for approval.
- 2.02 Provide devices and methods to protect adjacent areas or other portions of the Project from damage including dust protection, water protection, and exposure.
- 2.03 Maintain excavations free of water.

3 EXECUTION

- 3.01 The use of gasoline powered equipment, jackhammers or power actuated tools, explosives is prohibited on this Project.
- 3.02 Each Contractor shall:
 - 3.02.1 On behalf of itself and its Subordinate Parties be responsible for the cutting of all holes and openings through existing walls, partitions, ceilings, floors and roofs as necessary for the installation of its Work. Holes and openings shall be neatly cut and of minimum size to allow the Work to be installed. Execute cutting and demolition by methods which will prevent damage to other Work, and will provide proper surfaces to receive installation of repairs.
 - 3.02.2 Execute work in such a manner as to minimize disruptions to or interference with the Owner's normal operations or functioning in the existing buildings and provide all means necessary to provide safety and convenience of those employed in and about the premises.
 - 3.02.3 Be responsible for patching of all holes and openings it makes. Fit work should be airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces. Patching is to match adjacent surfaces in materials and finish.
 - 3.02.4 Utilize only tradesmen skilled in the specific finish and material involved in making the patches. All patching is to be done in a neat and workmanlike manner to the satisfaction of CM. Defective Work shall be corrected at no cost to the Owner and CM.
 - 3.02.5 Do all necessary cutting and fitting required to make a satisfactory connection where new Work connects with existing so as to leave the entire Work in finished and workmanlike condition. Furnish all labor and materials to this end, whether or not shown or specified. All measurements must be verified at the site.
 - 3.02.6 Employ the original installer and fabricator, when possible, to perform cutting and patching for, weather-exposed or moisture-resistant elements, sight-exposed finished surfaces.
 - 3.02.7 Execute fitting and adjustment or products to provide a finished installation to comply with the specified products, functions, tolerances and finishes.

- 3.02.8 Restore Work which has been cut or removed and shall install new products to provide completed Work in accordance with the Contract Documents. Each Contractor will be responsible to pay the appropriate contractor as designated by CM for restoring any portion of the Project that is disturbed, including but not limited to, slabs, walls, ceilings, fire rated partitions, spray-on fireproofing, and finishes, to their original state as a result of Contractor's action.
- 3.02.9 Refinish entire surfaces as the Contractor's Work scope requires providing an even finish to match adjacent surfaces and finishes, for continuous surfaces, refinishing to nearest intersection, for an assembly, and refinish the entire unit.
- 3.02.10 Be held responsible for reckless cutting of holes in slabs, walls or other finishes, or for scraping off areas of fireproofing larger or greater than that which is necessary for installation of its Work.
- 3.03 Removal and replacement of ceilings not scheduled to be replaced shall be the responsibility of the Contractor requiring access.

END OF SECTION 01540

SECTION 01550
CLEAN-UP AND FINAL CLEANING

A. SUMMARY

Execute final cleaning at completion of the Work, as required by this Section. For Contractor's daily clean-up, dust control and rubbish removal operations during construction, refer to Section 01520 Temporary Construction Controls.

a. DISPOSAL REQUIREMENTS

- i. Conduct final cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on Project site.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.

2 PART 2 - SITE CLEAN-UP/RUBBISH REMOVAL PROCEDURE

2.1. REQUIREMENTS

2.1.1. General Contractor shall:

- 2.1.1.1. Be responsible for daily, weekly and final clean-up of its Work and the work of its Subordinate Parties as defined herein.
- 2.1.1.2. Comply with applicable labor agreements and jurisdictional rules in the hiring of laborers to perform its clean up obligations under the Contract Documents.
- 2.1.1.3. Control of dust generated by its operations on a daily basis.
- 2.1.1.4. Maintain roadways clear of all debris at all times.
- 2.1.1.5. Only use cleaning materials which will not create hazards to health or property and which will not damage surfaces. Only those cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned shall be used.
- 2.1.1.6. Only use sweeping compounds that do not leave residue on concrete floor surfaces and that will not affect installation of finish flooring materials

2.1.2. Dumpsters:

- 2.1.2.1. Unless stated otherwise in the Work Scopes, the CM will provide and maintain the job site dumpsters for unidentifiable debris for use as specified below.
- 2.1.2.2. Each Contractor and its Subordinate Parties shall be responsible for daily clean-up, removal and placement in dumpsters of all debris and waste resulting from its operations.
- 2.1.2.3. No overfilling of dumpsters will be allowed. All adjacent areas are to be kept clean. Excavation, demolition, masonry, drywall and hazardous waste materials are NOT to be placed in CM's dumpster.
- 2.1.2.4. Each Contractor will be responsible for removing its own excavation, demolition, masonry, drywall and Hazardous Materials from the site in strict accordance with applicable laws and regulations regarding disposal.
- 2.1.2.5. Contractor shall indemnify, defend and hold harmless the Owner and CM from claims, damages, suits, costs, or expenses of any kind (including attorney's fees and costs) arising out of, resulting from or in connection with Contractor's misuse of dumpsters.

2.1.3. Daily Clean Up, Each Contractor shall:

- 2.1.3.1. Be responsible, DAILY for the clean -up, transport and removal from the site of identifiable debris including but not limited to, bulky debris, packaging, containers, unused materials and equipment, (i.e., masonry and concrete materials, drywall, steel, crates, carton, demolition debris, other packaging, and combustible items).
- 2.1.3.2. Leave no piles of debris in the building overnight. The cost of any overtime premium required to remove debris immediately at the end of each workday shall be included in the Contractor's Work.
- 2.1.3.3. handle materials in a controlled manner so that dust and other contaminants, do not affect the Owner's or other Contractor operations and equipment
- 2.1.3.4. Be responsible to leave its Work and work area in a clean condition. This includes, but is not limited to, removal of all grease, dust, dirt, stains, labels, fingerprints and other foreign matter.
- 2.1.4. Weekly Clean Up: Each Contractor shall:
 - 2.1.4.1. While on site, provide to CM one (1) person for each five tradesmen (or portion thereof) employed at the site, one day per week, for up to four (4) hours, for the exclusive purpose of performing overall project weekly clean-up of unidentifiable debris. The cost of this (these) person(s) shall be included in Contractor's Work.
 - 2.1.4.2. Include sweeping, loading and disposal of miscellaneous debris such as mud tracked through the building, drinking cups, bottles, lunch wrappers and other unidentifiable debris. Trash and debris from this operation shall be placed in the dumpster(s)
- 2.1.5. Final Clean Up:
 - 2.1.5.1. Final clean-up, will be done at a time designated by CM.
 - 2.1.5.2. Normally, Final Clean Up will occur before punchlist inspection or prior Owner Occupancy turnover.
 - 2.1.5.3. The Contractor's duties for Final Cleaning are:
 - 2.1.5.3.1. Prior to final completion or Owner occupancy, whichever occurs first, conduct an inspection of sight-exposed interior and exterior surfaces, and all Work areas, to verify that the entire Work is left in a broom clean condition and that all Final Cleaning as set forth above has been performed.
 - 2.1.5.3.2. Tunnels and closed off spaces shall be cleaned of packing boxes, wood frame members and other waste materials used in the construction.
 - 2.1.5.3.3. Temporary labels, stickers and similar items shall be removed from fixtures and equipment. Unless otherwise directed in the technical specifications, Contractors shall not remove permanent name plates, equipment model numbers, ratings, or other items intended to be permanently affixed to the fixture or equipment.
- 2.1.6. Use of Owner's Facilities: The Owner's facilities are not to be used by Contractor for the disposal of trash or debris from its Work.
- 2.1.7. Failure to perform Clean Up:
 - 2.1.7.1. If any Contractor or its Subordinate Parties fails to maintain a satisfactory clean-up program, CM will issue written notice, to the responsible Contractor, that the necessary clean-up must be performed within twenty-four (24) hours after the notice is given. The establishment of a definite deadline for the removal of debris and rubbish will supersede the necessity for any formal notification that such work must be done.

- 2.1.7.2. If Contractor(s) fail to perform the clean-up, by the deadline, CM may perform clean-up on the Project and back charge the responsible Contractor(s) for the costs. If necessary in order to remove unidentifiable debris beyond what is removed during weekly clean up, CM will perform such clean-up and shall pro-rate the cost among the Contractors in its discretion, based on Contractor(s) type of work and manpower on site. Back charges may be deducted from the monthly invoices of the Contractor(s) and/or final payment.
- 2.1.8. Hazardous Materials: Contractors or Subordinate Parties shall dispose of Hazardous Materials in strict accordance with applicable federal, state, and local laws and regulations. Hazardous Materials may not be placed in dumpsters and/or containers not so designated for such placement.

END OF SECTION 01550

SECTION 01600 FORMS

1 USE OF FORMS

- 1.01 Upon award of the Agreement, the various forms described and referenced in the Project Manual will be provided by CM and therefore are not bound in the Project Manual. Copies of forms are available for inspection at CM Office.
- 1.02 Following is a list of the key forms:
- 01250 Changes in the Work
 - PCO- Notice to Proceed
 - PCO- Quotation Only
 - Change Order Form (CMS.9.1 or CMS.9.2)
 - 01290 Payment Procedures
 - Application and Certificate for Payment (CON.27.1) and Continuation Sheet (CON.27.2)
 - Consent of Surety to Reduction In or Partial Release of Retainage (CON.26.6)
 - Payment schedule (PSI.10.1)
 - Payment Request for Stored Materials Form (CON.26.5)
 - Acknowledgment of Payment and Partial Unconditional Release Form (CON.26.3)
 - Unconditional Final Release and Waiver Subcontractor/Materialman Form (CON.26.4)
 - Sworn Statement Form (CON.26.2)
 - 01320 Communications
 - Trade Contractors Daily/Pre-Task Plan (CON.14.4)
 - Request for Information Form (CON.25.2) (in company approved software, if necessary)
 - 01330 Submittals
 - BMC Submittal Transmittal Form (CON.9.6)
 - 01400 Quality Requirements
 - Corrective Action Report (CAR)/Notice of Non-Conformance (NCR) (CON.18.2)
 - 01700 Contract Close-out
 - Consent of Surety Company to Final Payment Form (CON.26. 7)
 - Consent of Surety to Reduction in or Partial Release of Retainage Form (CON.26.6)
 - Certificate of Contract Completion Form (CLO.7.5)
 - 01720 Project Record Documents
 - Closeout Submittal (CLO.7.2)
 - 01740 Warranties and Guarantees
 - Contractor's Guarantee (CLO.7.3)
 - 01750 Systems Demonstration, Training and Start-up
 - Equipment/Systems Acceptance Form (CLO.2.1)
 - Owner Training Register (CLO.2.2)

END OF SECTION 01600

**SECTION 01630
PRODUCT SUBSTITUTIONS**

1. WORK INCLUDED

- 1.1. Furnish and install Products specified, under options and conditions for substitutions stated in this Section.

2. BIDDER'S OPTIONS

- 2.1. For products that are specified only by reference standard, select Product meeting that is standard by any manufacturer.
- 2.2. For Products specified by naming several Products or manufacturers, select any one of products and manufacturers named which complies with Specifications.
- 2.3. For Products specified by naming several Products or manufacturers and stating "or equivalent", or "or equal", or "or Architect approved equivalent", or similar wording, submit a request as for substitutions, for any Product or manufacturer which is not specifically named for review and approval by the Architect.
- 2.4. For Products specified by naming only one Product and manufacturer, there is no option and no substitution will be allowed.

3. SUBSTITUTION PROCESS

3.1. SUBSTITUTIONS

- 3.1.1. Base Bid shall be in accordance with the Contract Documents.
- 3.1.2. Substitutions for products may be made during the bidding period by submitting completed Substitution Request Form and substantiating product data/literature a minimum of ten (10) Days prior to Bid date to CM who will then forward to the Architect.
- 3.1.2.1. Architect will consider requests from the Bidder for substitution of products in place of those specified as set forth in this section.
- 3.1.2.2. Those submitted the specified calendar days prior to Bid Date will be included in an addendum if acceptable.
- 3.1.2.3. After the end of the bidding period, requests will be considered only in case of Product unavailability or other conditions beyond the control of Contractor.
- 3.1.2.4. Bid Proposals shall not be based on assumed acceptance of any item which has not been approved by addendum.
- 3.1.3. Bidders are required to submit a separate Substitution Request Form for each proposed substitution. Each substitution request should be accompanied by the following supporting documentation:
- 3.1.3.1. A full explanation of the proposed substitution.
- 3.1.3.2. Complete data substantiating compliance of the proposed substitution with the requirements stated in the Contract Documents.
- 3.1.3.2.1. Product identification, including the manufacturer's name and address.
- 3.1.3.2.2. Manufacturer's literature; identifying:
- 3.1.3.2.2.1. Product description and technical information.
- 3.1.3.2.2.2. Reference standards.
- 3.1.3.2.2.3. Performance and test data.
- 3.1.3.2.2.4. Installation instructions, operating procedures and other like information.
- 3.1.3.2.3. Samples, as applicable.

- 3.1.3.2.4. Names and addresses of similar projects on which product has been used, and date of each installation.
 - 3.1.3.3. Itemized comparison of the proposed substitution with the product specified, listing all significant variations.
 - 3.1.3.4. Data relating to changes in delivery or construction schedule.
 - 3.1.3.5. A list of all effects of the proposed substitution on separate contracts.
 - 3.1.3.6. Accurate cost data comparing the proposed substitution with the product specified.
 - 3.1.3.6.1. Amount of any net change to Contract Sum.
 - 3.1.3.7. Designation of required license fees or royalties.
 - 3.1.3.8. Designation of availability of maintenance services and sources of replacement materials.
 - 3.1.4. Substitutions will not be considered for acceptance when:
 - 3.1.4.1. They are indicated or implied on shop drawings or product data submittals without a formal request from Bidder.
 - 3.1.4.2. Acceptance will require substantial revision of Contract Documents.
 - 3.1.4.3. In judgment of Architect, do not include adequate information necessary for a complete evaluation.
 - 3.1.4.4. If requested after Contract Award directly by a subcontractor or supplier, except for special or unusual circumstances reviewed by the Contractor with CM.
 - 3.1.5. Substitute products shall not be ordered or installed without written acceptance of Architect.
 - 3.1.6. Architect will determine acceptability of proposed substitution.
- 3.2. BIDDER'S REPRESENTATION**
- 3.2.1. In making formal request for substitution the Bidder represents that:
 - 3.2.2. It has investigated the proposed product and has determined it is equivalent to or superior in all respects to the product specified.
 - 3.2.3. It will provide same warranties or bonds for the proposed substitution as required for the product specified.
 - 3.2.4. It will coordinate installation of the accepted substitution into the Work, and will make such changes as may be required for the Work to be complete in all respects.
 - 3.2.5. It waives all claims for additional costs caused by or arising from the substitution which may subsequently become apparent.
 - 3.2.6. Cost data is complete and includes related costs under its Agreement, but not:
 - 3.2.6.1. Costs under separate contracts.
 - 3.2.6.2. Architect's costs for redesign or revision of Contract Documents.
 - 3.2.7. Cost data need not be submitted, if request is for inclusion in an addendum. Requests after the Agreement is awarded shall contain a complete cost comparison.
 - 3.2.8. Any modifications necessary as a result of the use of an approved substitute shall be paid by the Contractor proposing the substitution.
 - 3.2.9. Any additional engineering costs required to be performed by the Architect to approve, implement or coordinate the substitution above reasonable review services, shall be paid by the Contractor proposing the substitution.

- 3.2.10. Under no circumstances will the Architect be required to prove that a product proposed for substitution is or is not equal to the quality of the product specified.

3.3. ARCHITECT'S DUTIES

- 3.3.1. Review requests for substitutions with reasonable promptness.
- 3.3.2. Coordinate review/approval of "Architect Approved" substitutions with the Owner prior to notifying the CM.
- 3.3.3. Issue a written instruction of decision to accept the substitution.
- 3.3.4. Substitution requests that are not approved will be returned to the party submitting the request with an explanation for the rejection.

3.4. SUBSTITUTION REQUEST FORM

- 3.4.1. The form is attached to this Section.
- 3.4.2. SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THE ATTACHED FORM IS COMPLETED AND INCLUDED WITH THE SUBMITTAL WITH ALL BACKUP DATA.

SUBSTITUTION REQUEST FORM

TO: Barton Malow Company

We hereby submit for your consideration the following product instead of the specified item for the above Project:

DRAWING NO.: _____ **DRAWING NAME:** _____

SPEC. SECT.	SPEC. NAME	PARAGRAPH	SPECIFIED ITEM
_____	_____	_____	_____

Proposed Substitution:

Attached complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted by:

Signature_____
Title_____
Firm_____
Address_____
Telephone_____
Date

Signature shall be by person having authority to legally bind his/her firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For use by Architect

☐ Accepted ☐ Accepted as noted
☐ Not accepted ☐ Received too late
☐ Insufficient data received

By: _____

Date: _____

For use by Owner

☐ Accepted ☐ Accepted as noted
☐ Not accepted ☐ Received too late
☐ Insufficient data received

By: _____

Date: _____

Fill in blanks below (attach additional sheets as required):

A. Does the Substitution affect dimensions shown on Drawings?

Yes _____ No _____ If yes, clearly indicate changes: _____

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

Yes _____ No _____ If no, fully explain: _____

C. What affect does substitution have on other contracts or other trades?

D. What affect does substitution have on the delivery and construction schedule? _____

E. Manufacturer's warranties of the proposed and specified items are: Same _____ Different _____

If different, explain on an attachment.

F. Reason for Request: _____

G. Itemized comparison of specified item(s) with the proposed substitution; list significant variations:

H. Accurate cost data comparing proposed substitution with product specified:

I. This substitution will amount to a credit or an extra cost to the Owner of:

_____ Dollars

(\$ _____)

END OF SECTION 01630

SECTION 01700 CONTRACT CLOSE-OUT

1. CLOSE-OUT PROCEDURE

- 1.1. The following procedure and forms will be used to sequentially progress through the contract close-out stage in a productive and timely manner.

1.1.1. **PREPARATION FOR CONTRACT CLOSE-OUT**

During the course of the Project, the Contractor will thoroughly review the Contract Documents as it relates to the requirements and obligations and gather and submit to CM the proper submittals, shop drawings, material certifications, waivers, certificates of insurance, bonds, and other contractual requirements impacting contract close-out.

1.1.2. **INITIATING THE FINAL CLOSE-OUT PROCESS**

When nearing 75% completion of the Work, the Contractor will review the status of the Close-Out process with CM. The Contractor's contractual responsibilities will be reviewed and outstanding close-out and other submittals identified.

1.1.3. **OBTAINING THE CERTIFICATE OF SUBSTANTIAL COMPLETION**

As the Contractor is nearing the completion of the Work and after concurrence with CM, it shall submit a written request for Substantial Completion, all required documentation as outlined, and a listing of all minor deficiencies yet to be completed.

The following documents are the minimum required at the time of request for Substantial Completion. Contractor shall also submit all additional documentation as required in the Contract Documents:

- 1.1.3.1. AIA G704 Certificate of Substantial Completion
- 1.1.3.2. As-built records
- 1.1.3.3. Operation and Maintenance Manuals
- 1.1.3.4. Keys, Maintenance Stock, and Spare Parts
- 1.1.3.5. Test and Start-up/Owner Training Sessions
- 1.1.3.6. Submission of Permits and Approvals (i.e. Fire Marshal, Department of Public Health Approvals, etc.)
- 1.1.3.7. Guarantee and Warranties
- 1.1.3.8. Punchlist (list of work to be completed or corrected)

Once CM has received all required documents they will be forwarded to the Architect and Owner. CM will review the Contractor's request for Substantial Completion; all above documentation, and list of deficiencies, add appropriate comments, and forward to the Architect and/or Owner for review. In conjunction with the Contractor, CM will establish a schedule for the completion of all listed items, which in no event shall exceed any time periods established in the Contract Documents for Final Completion.

When the Architect determines that the Work is substantially complete, the Certificate of Substantial Completion shall be issued to the Contractor.

1.1.4. **CONTRACTOR COMPLETES PUNCHLIST WORK**

Each Contractor shall submit a letter certifying all punchlist items are completed, in a manner acceptable to the Owner, CM and the Architect.

1.1.5. **FINAL INSPECTION NOTICE**

Each Contractor is to forward **(written notice and accompanying documentation)** to CM that Work is ready for final inspection and acceptance. CM will forward written notice to the Architect if CM is in agreement that Work is complete. The Architect will perform a final inspection and sign off on the punchlist form if Work is in fact completed. If punchlist work is not found complete, the Contractor shall take action to remedy any insufficiencies and then shall re-submit the written notice and accompanying documentation that Work is ready for **final** inspection and acceptance. If CM and/or Architect are required to perform more than 2 site visits to determine Substantial or Final Completion of Contractor's Work, the costs for such additional inspections shall be charged to Contractor.

The following documents are the minimum required to complete final payment. Contractor shall also submit all additional documentation as required in the Contract Documents:

- 1.1.5.1. Final Payment Request (on G702 & G703).
- 1.1.5.2. Guarantees/Warranties (including subs and suppliers).
- 1.1.5.3. Final Sworn Statements (including subs and suppliers).
- 1.1.5.4. Acknowledgment of Payment and Partial Unconditional Release
- 1.1.5.5. Final Release Subcontractor/Materialman
- 1.1.5.6. Certified Payroll Report (projects governed by prevailing wage laws)
- 1.1.5.7. Verification of Rate Classification and Payment (Federal projects)
- 1.1.5.8. Consent of Surety Company to Final Payment (AIA G707)
- 1.1.5.9. Consent of Surety to Reduction or Partial Release of Retainage (AIA G707A)
- 1.1.5.10. Certificate of Substantial Completion (on G704).
- 1.1.5.11. Completion and acceptance of all punchlist Work.

Items 1.1.5.2 through 1.1.5.5 must always be submitted with the final request for payment.

1.1.6. REVIEW OF FINAL PAYMENT REQUEST

CM and the Architect will review the Contractor's final payment request and Close-Out file. If all administrative documents are attached or have been submitted (i.e. guarantee, warranty, waiver of lien, etc.), all Work is complete, and all other responsibilities are met, the Project Team will forward the Contractor's Application for Final Payment to the Owner and payment shall be processed according to the Owner's regular procedures.

2. FINAL COMPLETION

- 2.1. To attain final completion, the Contractor shall complete activities pertaining to Substantial Completion, and complete Work on punch list items. Only then shall it issue written request to CM to conduct a site visit to determine Final Completion.
- 2.2. When Contractor considers the Work is finally complete, it shall submit written certification that:
 - 2.2.5. Contract Documents have been reviewed.
 - 2.2.6. Work has been inspected for compliance with Contract Documents.
 - 2.2.7. Work has been completed in accordance with Contract Documents.
 - 2.2.8. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - 2.2.9. Work is completed and ready for final observation.
- 2.3. CM and/or Architect will make an observation to verify the status of completion with reasonable promptness after receipt of such certification.
- 2.4. Should CM and/or Architect consider that the Work is incomplete or defective:

- 2.4.5. CM will promptly notify the Contractor in writing, listing the incomplete or defective Work.
 - 2.4.6. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the CM that the Work is complete.
 - 2.4.7. CM and/or Architect will re-inspect the Work.
 - 2.5. When CM and/or Architect determines that the Work is acceptable under the Contract Documents, it shall request the Contractor to make close-out submittals.
3. CONTRACTOR'S CLOSE-OUT SUBMITTALS
- 3.1. Evidence of compliance with requirements of governing authorities (state, local or federal):
 - 3.1.5. Certificates of Inspection:
 - 3.1.5.1. Mechanical
 - 3.1.5.2. Electrical
 - 3.1.5.3. Others as required
 - 3.2. Project Record Documents: Refer to requirements of Section 01720.
 - 3.3. Operating and Maintenance Data, Instructions to Owner's Personnel: Refer to requirements of Section 01730.
 - 3.4. Warranties and Bonds: Refer to requirements of Individual Sections and Individual Technical Specifications and Section 01740.
 - 3.5. Spare Parts and Maintenance Materials: Refer to requirements of Individual Technical Specifications.
 - 3.6. Evidence of Payment and Release of Liens: Refer to requirements of General and Supplementary Conditions and Section 01290.

END OF SECTION 01700

SECTION 01720
PROJECT RECORD DOCUMENTS

1 SUMMARY

- 1.01 Each Contractor shall be responsible to maintain at the job site one copy of:
 - 1.01.1 Record Contract Drawings
 - 1.01.2 Record Project Manual
 - 1.01.3 Addenda
 - 1.01.4 Reviewed/Approved Shop Drawings
 - 1.01.5 Change Orders
 - 1.01.6 Other modifications to Contract
 - 1.01.7 Field test records
 - 1.01.8 Affidavits
- 1.02 Store documents apart from documents used for construction.
- 1.03 Maintain documents in clean, dry, legible condition.
- 1.04 Do not use project record documents for construction purposes.
- 1.05 Make documents available for inspection by the Owner, CM and the Architect.
- 1.06 Failure to maintain documents up-to-date will be cause for withholding payments to Contractor.
- 1.07 At the outset of the project, obtain from the Architect through the CM, at no charge to the Contractor, one complete set of Contract Documents including:
 - 1.07.1 Technical Specifications with all addenda.
 - 1.07.2 One complete set of prints of all Drawings.

2 RECORDING

- 2.01 Label each document "Project Record."
- 2.02 Keep record documents current.
- 2.03 Do not permanently conceal any work until required information has been recorded.
- 2.04 Contract Drawings:
 - 2.04.1 Contractor may at his option enter required information on a "working set" and then at completion of Project transfer the information to final submitted "Project Record" set.
 - 2.04.2 Contractor shall legibly mark to record actual construction:
 - 2.04.2.1 Depths of various elements of foundation in relation to survey data.
 - 2.04.2.2 Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - 2.04.2.3 Location and depths of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - 2.04.2.4 Field changes of dimension and detail.
 - 2.04.2.5 Changes made by PCO- Notice to Proceed.

2.04.2.6 Details not on original Contract Drawings.

2.05 Technical Specifications and Addenda:

2.05.1 Contractor shall legibly mark up each section to record:

2.05.1.1 Manufacturer, trade name, catalog number and Supplier of each product and item of equipment actually installed.

2.05.1.2 Changes made by PCO- Notice to Proceed.

2.05.1.3 Other items not originally specified.

2.06 Conversion of Schematic Layouts:

2.06.1 Arrangement of conduits, circuits, piping, ducts and similar items are in most cases shown schematically on the Drawings.

2.06.2 Contractor shall legibly mark to record actual construction:

2.06.2.1 Dimensions accurate to within 1" of the center of items shown schematically.

2.06.2.2 Identify each item, for example, "cast iron drain", "galvanized water", etc.

2.06.2.3 Identify location of each item, for example, "under slab", "in ceiling plenum", "exposed", etc.

2.06.3 The Owner, Architect or CM may waive requirements of schematic layout conversion, when in their opinion, it serves no beneficial purpose. Do not, however, rely on waivers being issued except as specifically issued by the CM in written form.

3 SUBMITTAL

3.01 At completion of Project deliver, 1 set of electronic sets of Record Documents, in a format acceptable to the Owner and the Architect, using the Final Document Submittal Form (in Section 01600 Forms), to CM prior to request for final payment.

3.02 Accompany submittal with transmittal letter, in duplicate, containing:

3.02.1 Date

3.02.2 Project title and number

3.02.3 Contractor's name and address

3.02.4 Title and number of each record document

3.02.5 Certification that each document as submitted is complete and accurate.

3.02.6 Signature of Contractor, or his authorized representative.

END OF SECTION 01720

**SECTION 01730
OPERATIONS AND MAINTENANCE DATA**

1. SCOPE

- 1.1. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under Contract.
- 1.2. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of the Technical Specifications.
- 1.3. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems in accordance with the requirements in Section 01750 Systems Demonstration, Training and Start-up.

2. QUALITY ASSURANCE

- 2.1. Preparation of data shall be done by personnel:
 - 2.1.1. Trained and experienced in maintenance and operation of described products.
 - 2.1.2. Familiar with requirements of this Section.
 - 2.1.3. Skilled as technical writer to the extent required to communicate essential data.
 - 2.1.4. Skilled as draftsman competent to prepare required drawings.

3. FORM OF SUBMITTALS

- 3.1. Prepare data in the form of an instructional manual for use by Owner's personnel.
- 3.2. Format:
 - 3.2.1. Size: 8-1/2" x 11"
 - 3.2.2. Paper: white, for typed pages.
 - 3.2.3. Text: Manufacturer's printed data, or neatly typewritten.
 - 3.2.4. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.
 - b. Fold larger drawings to size of text pages.
 - 3.2.5. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - c. Provide typed description of product, and major component parts of equipment.
 - d. Provide indexed tabs.
 - 3.2.6. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS." list:
 - e. Title of Project
 - f. Identity of separate structures as applicable.
 - g. Identity of general subject matter covered in the manual.
- 3.3. Binders:
 - 3.3.1. Commercial quality three-ring binders with durable and cleanable plastic covers.
 - 3.3.2. Maximum ring size: 3"
 - 3.3.3. When multiple binders are used, correlate the data into related consistent groupings.

4. CONTENT OF MANUAL

- 4.1. Neatly typewritten table of contents for each volume, arranged in systematic order.

- 4.1.1. Contractor, name of responsible principal, address and telephone number.
- 4.1.2. A list of each product required to be included, indexed to content of the volume.
- 4.1.3. List with each product, name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. Maintenance contractor, as appropriate.
 - c. Identify area of responsibility of each.
 - d. Local source of supply for parts and replacement.
- 4.1.4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- 4.2. Product Data:
 - 4.2.1. Include only those sheets which are pertinent to the specific product.
 - 4.2.2. Annotate each sheet to:
 - e. Clearly identify specific product or part installed.
 - f. Clearly identify data applicable to installation.
 - g. Delete references to inapplicable information.
- 4.3. Drawings:
 - 4.3.1. Supplement product data with drawings as necessary to clearly illustrate:
 - b. Relations of component parts or equipment and systems.
 - c. Control and flow diagrams.
 - 4.3.2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 - 4.3.3. Contractor may use Project Record Documents as maintenance drawings - coordinate with CM.
- 4.4. Written text, as required to supplement product data for the particular installation:
 - 4.4.1. Organize in consistent format under separate headings for different procedures.
 - 4.4.2. Provide logical sequence of instructions for each procedure.
- 4.5. Copy of each warranty, bond and service contract issued.
 - 4.5.1. Provide information sheet for Owner's personnel, give:
 - a. Proper procedures in event of failure.
 - b. Instances which might affect validity of warranties or bonds.
- 5. MANUAL REVIEW AND PREPARATION SCHEDULE
 - 5.1. Submit two copies of preliminary draft of proposed formats and outlines of contents to CM prior to start of preparation.
 - 5.1.1. Architect will review draft and return one copy with comments.
 - 5.2. Submit 1 set of electronic copy of completed data in final form to the CM at least 2 months before the end of the project, for Owner review.
 - 5.2.1. Copy will be returned after final inspection or acceptance, with comments.
 - 5.3. Submit copies of completed operation and maintenance manuals at least two (2) weeks before execution and have at hand for use in demonstrations and instructions.

- 5.4. Submit specified number of copies of approved data in final form to the CM ten (10) days after final inspection or acceptance.

6. PRODUCTS

6.1. MANUAL FOR MATERIALS AND FINISHES

- 6.1.1. Submit 1 electronic copy of complete manual in final form.
- 6.1.2. Content, for architectural products, applied materials and finishes:
 - 6.1.2.1. Manufacturer's data, giving full information on products.
 - 6.1.2.1.1. Catalog number, size, and composition.
 - 6.1.2.1.2. Color and texture designations.
 - 6.1.2.1.3. Information required for reordering special-manufactured products.
 - 6.1.2.2. Instructions for care, maintenance and preventative maintenance.
 - 6.1.2.2.1. Manufacturer's recommendation for types of cleaning agents and methods.
 - 6.1.2.2.2. Cautions against cleaning agents and methods which are detrimental to product.
 - 6.1.2.2.3. Recommended schedule for cleaning and maintenance.
- 6.1.3. Content, for moisture-protection and weather-exposed products:
 - 6.1.3.1. Manufacturer's data, giving full information on products.
 - 6.1.3.1.1. Applicable standards.
 - 6.1.3.1.2. Chemical composition.
 - 6.1.3.1.3. Details of installation.
 - 6.1.3.2. Instructions for inspection, maintenance and repair.
- 6.1.4. Additional requirements for maintenance data: Reference sections of Technical Specifications.

6.2. MANUAL FOR EQUIPMENT AND SYSTEMS

- 6.2.1. Submit 1 electronic copy of complete manual in final form.
- 6.2.2. Content, for each unit of equipment and system, as appropriate:
 - 6.2.2.1. Description of unit and component parts.
 - 6.2.2.1.1. Function, normal operating characteristics, and limiting conditions.
 - 6.2.2.1.2. Performance curves, engineering data and tests.
 - 6.2.2.1.3. Complete nomenclature and commercial number of replaceable parts.
 - 6.2.2.2. Operating procedures:
 - 6.2.2.2.1. Start-up, break-in, routine and normal operating instructions.
 - 6.2.2.2.2. Regulation, control, stopping, shutdown and emergency instructions.
 - 6.2.2.2.3. Summer and winter operating instructions.
 - 6.2.2.2.4. Special operating instructions.
 - 6.2.2.3. Maintenance and Preventative Maintenance Procedures:
 - 6.2.2.3.1. Routine operations.
 - 6.2.2.3.2. Guide to "trouble-shooting".

- 6.2.2.3.3. Disassembly, repair and re-assemble.
 - 6.2.2.3.4. Alignment, adjusting and checking.
 - 6.2.2.4. Servicing and lubrication schedule.
 - 6.2.2.4.1. List of lubricants required.
 - 6.2.2.5. Manufacturer's printed operating and maintenance instructions.
 - 6.2.2.6. Description of sequence of operation by control manufacturer.
 - 6.2.2.7. Original manufacturer's parts, list, illustrations, assembly drawings and diagrams required for maintenance.
 - 6.2.2.7.1. Predicted life of parts subject to wear.
 - 6.2.2.7.2. Items recommended to be stocked as spare parts.
 - 6.2.2.8. As-installed control diagrams by controls manufacturer.
 - 6.2.2.9. Each Contractor's coordination drawings.
 - 6.2.2.9.1. As-installed color coded piping diagrams.
 - 6.2.2.10. Charts of valve tag numbers, with location and function of each valve.
 - 6.2.2.11. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 - 6.2.2.12. Other data as required under pertinent sections of specifications.
- 6.2.3. Content, for each electric and electronic system, as appropriate:
 - 6.2.3.1. Description of system and component parts.
 - 6.2.3.1.1. Function, normal operating characteristics and limiting conditions.
 - 6.2.3.1.2. Performance curves, engineering data and tests.
 - 6.2.3.1.3. Complete nomenclature and commercial number of replaceable parts.
 - 6.2.3.2. Circuit directories of panel boards.
 - 6.2.3.2.1. Electrical service.
 - 6.2.3.2.2. Controls.
 - 6.2.3.2.3. Communications.
 - 6.2.3.3. As-installed color coded wiring diagrams.
 - 6.2.3.4. Operating procedures:
 - 6.2.3.4.1. Routine and normal operating instructions.
 - 6.2.3.4.2. Sequences required.
 - 6.2.3.4.3. Special operating instructions.
 - 6.2.3.5. Maintenance and preventative maintenance procedures:
 - 6.2.3.5.1. Routine operations.
 - 6.2.3.5.2. Guide to "trouble-shooting".
 - 6.2.3.5.3. Disassembly, repair and re-assemble.
 - 6.2.3.5.4. Adjustment and checking.
 - 6.2.3.6. Manufacturer's printed operating and maintenance instructions.

- 6.2.3.7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
- 6.2.3.8. Other data as required under pertinent sections of specifications.
- 6.2.4. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.
- 6.2.5. Additional requirements for operating and maintenance data: Reference sections of Technical Specifications.

END OF SECTION 01730

SECTION 01740 WARRANTIES AND GUARANTEES

1 GENERAL

- 1.01 Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

2 WARRANTY REQUIREMENTS

- 2.01 Deliver all written warranties and guarantees required by the Contract Documents with the Owner named as beneficiaries. All warranties shall include labor and materials, shall be signed by the manufacturer or subcontractor as the case may be, and countersigned by the Contractor. All written warranties shall be addressed to the Owner and delivered to CM upon completion of the Project, before or with the submission of Request for Final Payment.
- 2.02 In addition to all other warranties set forth in the Contract Documents or imposed by applicable law, Contractor warrants to Owner and CM that the Work will be free from defects and performed in strict conformity with the requirements of the Contract Documents. This warranty survives the termination of the Agreement and shall only be extinguished by limitation periods imposed by applicable law and shall not be limited by any other provisions contained in the Agreement, including any provisions or time periods related to Contractor's obligation to correct defective Work.
- 2.03 Contractor, upon signing the Agreement, shall obtain and forward to CM any and all Standard Product Warranties for products, materials and systems covered under its Agreement. The Manufacturer's warranties do NOT relieve the Contractor from its warranty obligations under the Contract Documents.
- 2.04 Special Warranties shall become effective on a date established by the Project Team. This date generally shall be the date of Final Completion of the Project or Substantial Completion of the Project or portions thereof as agreed upon by the Project Team. In the case of acceptance of a portion of the Work or Project, separate warranties shall be issued for those specific portions of the Project that were accepted, and shall be dated the date the specific portion was accepted. As additional Work is accepted, separate warranties for those specific portions of the Work shall be issued and properly dated. Issuance of warranties for a portion of the Work shall in no way become the basis for Application for Final Payment.
- 2.05 If for any reason, the Bidder cannot warrant any part of the Work using products, materials, or construction methods that have been specified or shown, it shall notify CM in writing at least ten (10) days before the bid submission date, giving reasons together with the names of products and data on substitutions it can guarantee. Should the Bidder fail to so notify CM within this time period, it will be bound to all warranties and guarantees as set forth in the Contract Documents.
- 2.06 Related Damages and Losses: In correcting Work that has been rejected as defective or otherwise failing to conform to the Contract Documents, whether before or after Substantial Completion, Contractor shall bear all related costs, including, but not necessarily limited to, the cost to correct the Work, the cost to correct all other Work that has been damaged by the defective or non-conforming Work, or that is damaged in the process of correcting the defective or nonconforming Work, and the cost of all additional testing and inspections and compensation for the Architect and/or CM's services and expenses made necessary thereby.
- 2.07 Reinstatement of Warranty: When Work covered by a warranty with a specific time period has failed and has been corrected by Contractor, the warranty shall be reinstated for a time period equal to the original warranty.
- 2.08 Express warranties are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available to the Owner or CM under the law. Express warranty periods shall not be interpreted as limitations on the time in which Owner or CM may enforce Contractor's duties and obligation or their rights and remedies under the Agreement and applicable law.

2.08.1 Rejection of Warranties: The Owner and CM reserve the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

2.09 Where the Contract Documents require a Special Warranty, or similar commitment on the Work or part of the Work, the Owner and CM reserve the right to refuse to accept the Work, until the Contractor presents evidence that the entities required to countersign such commitments are willing to do so.

3 SUBMITTALS

3.01 Submit electronic copies of the warranties to the CM within fourteen (14) days of Substantial Completion using the form found in section 01600-Forms and organizing the warranty documents into an orderly sequence based on the table of contents of the Project Manual. If the project Team's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of CM.

3.02 When the Contract Documents require Contractor, or Contractor and a Subordinate Party to execute a Special Warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the CM for approval prior to final execution.

3.03 Forms for warranties are included in Section 01600-Forms. Prepare a written document utilizing the appropriate form, ready for execution by Contractor and its Subordinate Party(ies). Submit a draft to CM for approval prior to final execution.

END OF SECTION 01740

SECTION 01750
SYSTEMS DEMONSTRATION, TRAINING AND START-UP

2 GENERAL

- 2.01 COORDINATE Procedures for demonstration of equipment operation and instruction of Owner's personnel through CM.

3 QUALITY ASSURANCE

- 3.01 When specified in individual Sections, require manufacturer to provide authorized representative to demonstrate operation of equipment and systems, instruct Owner's personnel, and provide written report that demonstrations and instructions have been completed.
- 3.02 CM will provide list of personnel to receive instructions, and will coordinate their attendance at agreed-upon times.

4 SUBMITTALS

- 4.01 Submit preliminary schedule to CM for Architect's and Owner's approval, listing times and dates for demonstration of each item of equipment and each system, at least two (2) weeks prior to proposed dates.
- 4.02 Submit electronic copies of the reports within one week after completion of demonstrations, that demonstrations and instructions have been satisfactorily completed. Give time and date of each demonstration, and hours devoted to demonstration, with a list of persons present.

5 PREPARATION

- 5.01 Provide substantiating information that verifies equipment has been inspected and put into operation; testing, adjusting, and balancing has been performed; and equipment and systems are fully operational.
- 5.02 Submit copies of completed operation and maintenance manuals at least two (2) weeks before execution and have at hand for use in demonstrations and instructions.
- 5.03 CM will develop a schedule for the system demonstration, training, start-up and turn over of all systems and equipment.

6 DEMONSTRATION AND INSTRUCTIONS

- 6.01 Demonstrate operation and maintenance of equipment and systems to the Owner's, CM's and Architect's personnel two (2) weeks prior to date of final inspection. For equipment requiring seasonal operation, perform instructions for other seasons within six months. Contractor shall document the testing, equipment start-up and training sessions as required using the following forms in Section 01600 Forms:
- 6.01.1 Equipment/System Acceptance - This form will be completed for each piece of equipment or system for each contract that requires operational testing and/or training before acceptance. This will document the date of testing, the equipment tested, names of personnel which witnessed the testing and acceptance.
- 6.01.2 Owner Training Register - This form will be completed for each contract that requires training to be provided to the Owner's personnel. This will document the date of training, type of training, names of the personnel trained and acceptance of the training.
- 6.02 The amount of time required for instruction on each item of equipment and system is that specified in individual sections or as mutually agreed upon between Contractor and CM.
- 6.03 Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.
- 6.04 Use operation and maintenance manuals as basis of instruction and review the contents of the manuals with personnel in full detail to explain all aspects of operations and maintenance.
- 6.05 Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instructions.

- 6.06 Contractor is responsible for video taping the training sessions. The videotape should be of professional quality and the Owner should be provided with three (3) copies of the videotape.

END OF SECTION 01750