SPECIFICATIONS FOR

KITCHEN EXHAUST HOOD REPLACEMENT & RELATED WORK

AT

IDA ELEMNTARY SCHOOL

7900 IDA STREET, IDA, MI 48140

FILE #26002

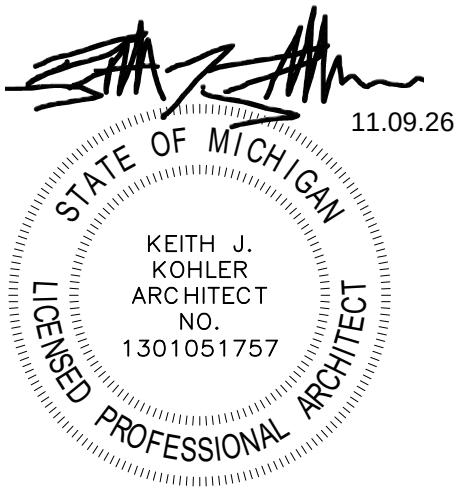
FOR

IDA PUBLIC SCHOOLS

3145 PRAIRIE ST., IDA, MI. 48140

NOVEMBER 9, 2026

KOHLER
ARCHITECTURE
1110 WEST FRONT STREET
MONROE, MICHIGAN 48161
WWW.KOHLERARCHITECT.NET



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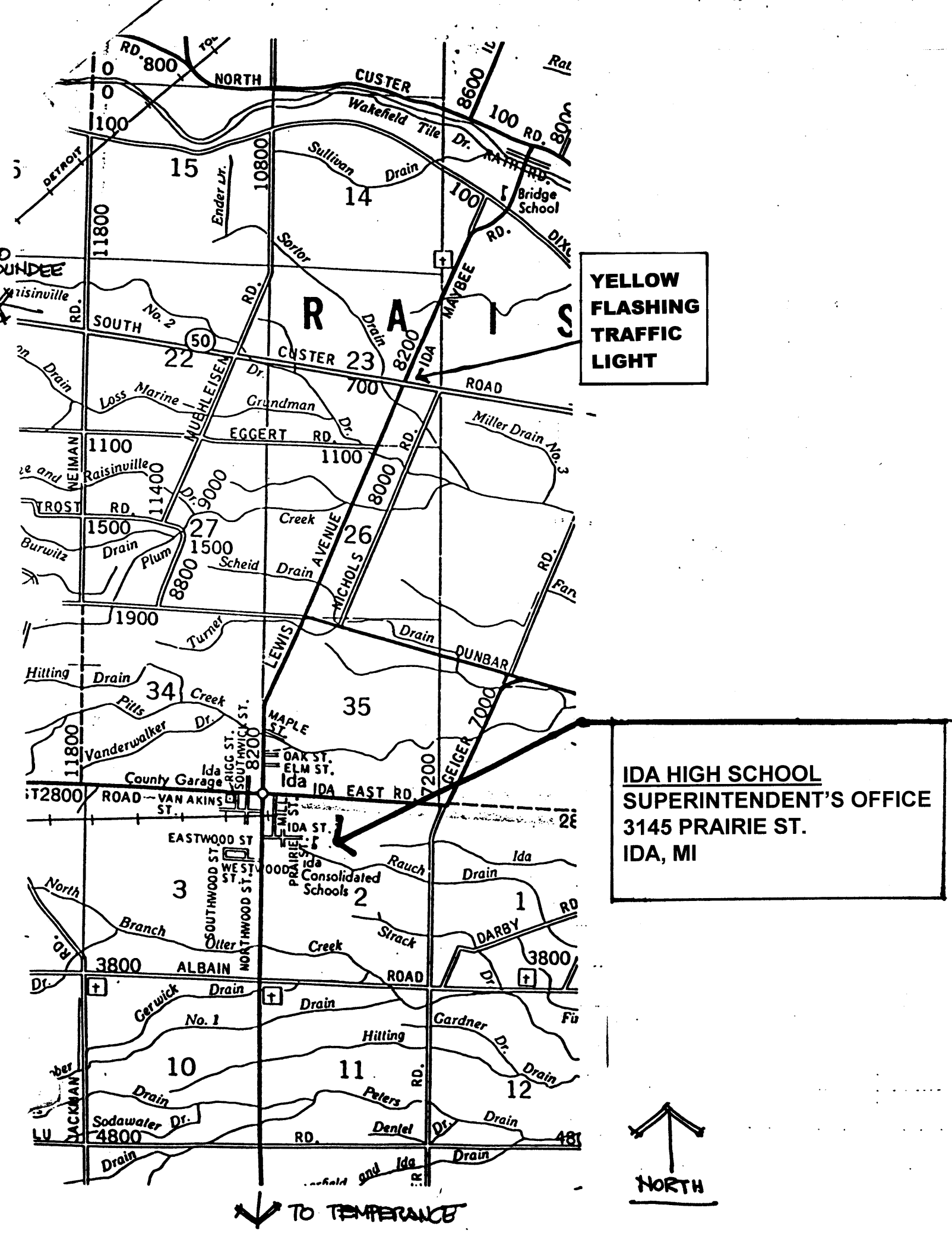
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END OF SECTION


YELLOW FLASHING TRAFFIC LIGHT
IDA HIGH SCHOOL
SUPERINTENDENT'S OFFICE
3145 PRAIRIE ST.
IDA, MI
NORTH
TO TEMPERANCE
RAISIN
CUSTER ROAD
SOUTH CUSTER ROAD
EGGERT RD.
DUNBAR ROAD
IDA EAST RD
ALBAIN ROAD
DARBY RD
MAYBEE RD.
DIXIE HWY.
MUGHLEISEN RD.
LEWIS AVENUE
NICHOLS RD.
GEIGER RD.
SOUTHWICK ST.
MAPLE ST.
OAK ST.
ELM ST.
IDA ST.
EASTWOOD ST
WEST ST.
PRAIRIE ST.
MILL ST.
VAN AKINS ST.
RIGG ST.
SOUTHWOOD ST.
NORTHWOOD ST.
Ida Consolidated Schools
Ida County Garage
Sullivan Drain
Ender Dr.
Sortor Rd.
Loss Marine Drain
Grandman Dr.
Miller Drain No. 3
Raisinville Rd. No. 2
Wakefield Tile Dr.
Bridge School
Creek
Burwitz Drain
Plum Drain
Scheid Drain
Turner Drain
Hilting Drain
Pitts Creek
Vanderwalker Dr.
North Branch Otter Creek
Rauch Drain
Strack Drain
Gerwick Drain No. 1
Hilting Drain
Gardner Dr. Drain
Peters Drain
Sodawater Dr. Drain
Dentel Dr. Drain
Ida Drain
Fan Drain
Jackman Rd.
Detroit
Toledo
Dundee
Raisinville
Rat
Fu
Ida
Gd
Ida
Rd
Rd
Rd

ADVERTISEMENT FOR BIDS

OWNER: Ida Public Schools
3145 Prairie Street
Ida, MI. 48140
Phone: (734) 269-9003

ARCHITECT:

KOHLER ARCHITECTURE
WWW.KOHLERARCHITECT.NET
1110 WEST FRONT ST., MONROE, MI. 48161
PH: (734)242-6880 FX:(734)242-6883

PROPOSALS: Separate sealed proposals for Prime Contractors are invited for the following construction work: (#26002) **Kitchen Exhaust Hood Replacement and Related Work at Ida Elementary School**, 7900 Ida Street, Ida, MI, 48140 for Ida Public Schools, Ida, MI. Proposals are to be separate per project and complete, including all trades (Sub-Contractors and Suppliers), as the successful Contractor will be considered a Prime Contractor entering into a direct contract with the Owner.

DUE DATE: Proposals will be received by the owner until **Wednesday, December 9, 2026 at 3:30 P.M.**, at the Ida Public Schools High School Supeintendent's Office, 3145 Prairie Street, Ida, MI 48140. Bids will be publicly opened and read aloud at that time at the same location. The School Board will not consider or accept any bid submitted after the due date and time.

PLANS: Electronic pdf copies will be available for viewing and/or downloading at no cost from the Ida Public Schools website at **https://www.idaschools.org/district/administration/business-office/** Hard copies of plans and specifications may be purchased for $150.00 for each set from the office of Kohler Architecture, Inc. located at 1110 West Front Street, Monroe, MI., 48161.

The project will be advertised on the Buy4Michigan.com website and at Builders Exchange of Michigan, Grand Rapids, MI; CMD (Construction Market Data).Norcross, GA; Construction Association of Michigan, Bloomfield Hills, Mi.; Dodge Data & Analytics. Cincinnati, OH. Only bidders registered with the Architect will be sent any addendums and receive any other information regarding this project.

MANDATORY PRE-BID MEETING: A mandatory pre-bid meeting will be held at the job site **Wednesday, November 18, 2026 at 3:30 P.M.** Check-In at front Main Office at Elementary School.

These meetings are for the Prime Contractors, (NOT Sub-Contractors), to gain knowledge about the project and submit proof of qualifications for pre-approval. The Architect's Project Manager, will be at this meeting to collect proof of qualification documentation, clarify the bidding procedures, scope of work, identify any items of concern and answer questions from the Bidders for their preparation and submission of representative competitive bids. It is the Contractor's responsibility to assure the Architect has been furnished all necessary pre-approval information as listed in Instructions to bidders Art. 19 at or prior to this meeting. The Architect will assemble an official list of approved bidders two days after the mandatory pre-bid meeting. The list will be limited to Contractors who attend the entire pre-bid meeting, have signed an official attendance list, have checked out official plans and specifications from the Architect, and meet the minimum Contractor qualifications as listed in the Instructions to Bidders. **Bids submitted by Contractors who are not on the approved bidders list or do not meet these pre-bid requirements will not be opened and will be returned to the bidder.**

PROPOSAL GUARANTEE: The proposal must be accompanied by a certified check or bid bond by an approved surety company in the amount of five percent (5%) of the proposal submitted payable to the Owner. Proposals shall remain firm for a period of forty-five (45) days after official opening of bids.

CONTRACT SECURITY: The successful Contractor will be required to furnish performance, labor and material bonds, each in the full amount of the proposal if payments are issued prior to completion and/or the contract is $50,000.00 or more.

FAMILIAL DISCLOSURE: All bidders must provide disclosure in compliance with MCL 380.1267 and attach this information to the bid. The bid shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the Owner or the employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. The District shall not accept a bid that does not include this sworn and notarized disclosure statement.

IRAN ECONOMIC SANCTIONS ACT COMPLIANCE: All bidders must provide a sworn and notarized statement in compliance with Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 and attach this information to the bid. The District shall not accept a bid that does not include this sworn and notarized statement.

BIDDER'S QUALIFICATIONS: All bidders must comply with the following:

1. The main office of all Contractors, Sub-Contractors, and other bidders shall be located within approximately a fifty (50) mile radius from job site.
2. The prime contractor shall have been in business under its present name and ownership for the last five (5) years and have completed four (4) recent similar projects.
3. All contractors / subcontractors must be in compliance with the criminal / security requirements under the Michigan School Safety Legislation Article 2 of 1994 PA 295, as amended.

RIGHT RESERVED BY OWNER: The Owner reserves the right to waive any irregularities, reject any or all bids, or accept the bid that in the opinion of the Owner, will serve the best interests of the Owner.

PROPOSAL FORM

To: Ida Public School Superintendent:

Having carefully examined the Instructions to Bidders, the Specifications and Drawings, including Addendum No._____, all entitled, “Ida Elementary School Kitchen Exhaust Hood Replacement & Related Work, 7900 Ida, MI 48140, for Ida Public Schools, 3145 Prairie Street, Ida, MI 48140", Architect's File #26022, as well as the premises and the conditions affecting the work, the undersigned agrees to furnish all labor and materials to perform the work, including All Trades, and agrees to accept in payment therefore, the sum of:

PROPOSAL A (Base Bid)

_____ Dollars

($_____) inclusive of all work.

The Bidder’s shall submit with their bid an anticipated schedule for construction identifying a start date and substantial completion date. The procurement of equipment shall be done immediately and included as part of the schedule.

The following form of bid guarantee, as indicated below, is herewith enclosed, representing 5% of the amount of the Total Bid, including Alternates, payable to the Owner:

Certified Check_____ **Bid Bond**_____

It is agreed that this bid may not be withdrawn for a period of 60 days. The Owner reserves the right to waive any irregularities, reject any or all bids or accept the bid that in the opinion of the Owner will serve the best interest of the Owner.

Guaranteed Maximum percentage of mark-up values on change orders including Overhead, profit, bond, insurance, wage rates, and equipment rates for BOTH prime contractors and subcontractors will not more than

_____%.

The undersigned agrees, if awarded the contract, to commence construction immediately and to complete work as noted in Division #1. (Notes: See Supplemental and Special conditions for Liquidated Damages and Instructions to Bidders for Architect's Inspections and Additional Services.)

SUB-CONTRACTORS - The undersigned submits for your approval herewith as a condition of being awarded the contract, the **separately attached list** of Contractors to whom it is proposed to let portions of this work, agreeing in every way to be responsible for the work, materials, equipment and supplies furnished by each and all of them. **A tentative list shall be submitted with bid and confirmed/verified no later than 24 hours after bid opening.**

SUBSTITUTIONS - The following is a list of manufacturers or trade names of substitute materials and equipment, which the undersigned submit for consideration, guaranteeing the same to conform to exact requirements of the specifications. The additions, deductions or no-charge figures indicated are separate from and not part of the proposal. **A tentative list shall be submitted with bid and confirmed/verified no later than 24 hours after bid opening.**

Item	Substitute Mfr./Trade Name	Add	Deduct	No Charge
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PROPOSAL FORM

Project Schedule

This reflects an anticipated project schedule for this construction project. Contractors shall familiarize themselves with this schedule and note any proposed changes on the blank lines provided below. The project schedule will be reviewed, coordinated, and finalized at the contractor/owner pre-construction meeting.

Description	**Anticipated Date / Duration**	**Contractor Confirmed**
Advertise	Monday, November 2, 2026	
Out for Bids	Monday, November 9, 2026	
Mandatory Pre-Bid Meeting	**Wednesday, November 18th @ 3:30pm Ida Elementary School**	
Official Bidders List	November 19th	
Bids Due	**Wednesday, December 9th @ 3:30pm (Ida High School Superintendent Office)**	
Post Bid Interviews	December 11th, 2026	
Architect Recommendation	December 11th, 2026	
Owner Awards Project	December 14th, 2026 Ida Board of Education Meeting	
Notice to Proceed Letters	December 15th, 2026	
Pre-Construction Meeting	TBD	
Physical Construction	June 12, 2027	_____
Substantial Completion	July 30, 2027	_____
Final Completion	August 31, 2027	_____

PROPOSAL FORM

FAMILIAL DISCLOSURE – As required by the State of Michigan, and included as part of this proposal, shall be an Affidavit for Statement Regarding Familial Relationship, completely filled out and signed.

IRAN ECONOMIC SANCTIONS ACT COMPLIANCE - As required by the State of Michigan, and included as part of this proposal, shall be an Affidavit of Compliance of the Iran Economic Sanctions Act, Michigan Public Act No. 515 of 2012, completely filled out and signed.

BIDDER'S COMPLIANCE ASSURANCE- **Sign in the space provided below to confirm that you have read, understand, and will comply with the requirements as stated in this project manual, including, but not limited to the sections dealing with the following: (1) criminal/security checks/records and, (2) Qualification of Bidders.**

(PLEASE PRINT OR TYPE)

Date _____ Firm_____

Address _____ By _____

_____ Signature _____

Phone _____ Title _____

Email _____ Fed. Tax ID _____

STATEMENT REGARDING FAMILIAL RELATIONSHIP

AFFIDAVIT OF _____
(insert name of affiant)

STATE OF MICHIGAN)
)ss
COUNTY OF _____)

_____ makes this Affidavit under oath and states as follows:
(insert name of affiant)

1. I am a/the:
   - ☐ President
   - ☐ Vice-President
   - ☐ Chief Executive Officer
   - ☐ Member
   - ☐ Partner
   - ☐ Owner
   - ☐ Other (please specify) _____

of _____, a bidder on a construction project for
(insert name of contractor)

Ida Public Schools that involves, at least in part, construction of a new school building or an addition to or repair or renovation of an existing school building or other facilities.

2. I have personal knowledge and/or I have personally verified that the following are all of the familial relationships existing between the owner(s) and the employee(s) of the aforementioned contractor and the school district's superintendent and/or board members: (leave blank if none)

_____

_____

_____

3. I have authority to bind the aforementioned contractor with the representations contained herein, and I am fully aware that the school district will rely on my representations in evaluating bids for the construction project.

4. I declare the above information to be true to the best of my knowledge, information and belief. I could completely and accurately testify regarding the information contained in this affidavit if requested to do so.

_____
(signature of affiant)

Dated: _____

Subscribed and sworn before me in _____ County,

Michigan, on the ___ day of _____, 2026.

_____ (signature)

_____ (printed)

Notary public, State of Michigan, County of _____

My Commission expires on _____

Acting in the County of _____

AFFIDAVIT OF COMPLIANCE
IRAN ECONOMIC SANCTIONS ACT
Michigan Public Act No. 517 of 2012

AFFIDAVIT OF _____
(insert name of affiant)

STATE OF MICHIGAN)
)ss
COUNTY OF _____)

_____ makes this Affidavit under oath and states as follows:
(insert name of affiant)

1. I am a/the:
   - ☐ President
   - ☐ Vice-President
   - ☐ Chief Executive Officer
   - ☐ Member
   - ☐ Partner
   - ☐ Owner
   - ☐ Other (please specify) _____

   of _____, a bidder on a construction project for
   (insert name of contractor)
   Ida Public Schools that involves, at least in part, construction of a new school building or an addition to or repair or renovation of an existing school building or other facilities.

2. I personally certify, represent and warrant that the Bidder (including 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 Bidder is awarded a Contract as a result of the aforementioned Advertisement for Bids, the Bidder will not become an "Iran Linked Business" at any time during the course of performing under the Contract.

   The Bidder further acknowledges that any person as that term is defined in Section 2(f) of the "Act" who is found to have submitted false certification is responsible for a civil penalty of not more than $250,000.00 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater plus the cost of the Owner'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 an Invitation to Bid or submit a proposal as to any Request for Proposals for a period of three (3) years from the date that it is determined that the person has submitted the false certification.

3. I have authority to bind the aforementioned contractor with the representations contained herein, and I am fully aware that the school district will rely on my representations in evaluating bids for the construction project.

4. I declare the above information to be true to the best of my knowledge, information and belief. I could completely and accurately testify regarding the information contained in this affidavit if requested to do so.

_____
(signature of affiant)

Dated: _____

Subscribed and sworn before me in _____ County,

Michigan, on the ___ day of _____, 2026.

_____ (signature)

_____ (printed)

Notary public, State of Michigan, County of _____

My Commission expires on _____

Acting in the County of _____

SECTION 002113
INSTRUCTIONS TO BIDDERS

INVITATION

1.01 PROPOSAL SUBMISSION

A. Bids signed and sealed, executed, and dated will be received per the Advertisement for Bids.

B. Submit required Supplements To Bid Forms within 24 hours after closing time for receiving bids.

C. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

1.02 INTENT

A. All work specified in this project manual shall be bid as one package. The prime contractor (assumed General Contractor) shall be responsible to assemble and collect all parts, materials, equipment, labor, etc. as required for a complete finished installation at completion. Included shall be architectural (patching, demolition, finishes, roofing, etc.) mechanical, electrical, plumbing, and all other related trades as required for a complete project.

1.03 CONTRACT TIME

A. The bidder, in submitting an offer, will perform the Work within the time stated in Section 001300 - Project Schedule.

BID DOCUMENTS AND CONTRACT DOCUMENTS

2.01 CONTRACT DOCUMENTS IDENTIFICATION

A. All work shall be performed under this contract as described in this project manual as prepared by Kohler Architecture, Inc. Included, but not limited to are; Title Sheet, Index, Advertisement for Bids, Bid Proposal Form, Instructions to Bidders, Certificate of Insurance, Specifications - All Divisions, Drawings, etc.

2.02 AVAILABILITY

A. Electronic pdf copies will be available for viewing and/or downloading at no cost from the Ida Public Schools website at **https://www.idaschools.org/district/administration/business-office/** Hard copies of plans and specifications may be purchased for $150.00 for each set from the office of Kohler Architecture, Inc. located at 1110 West Front Street, Monroe, MI., 48161. These are the official and only recogonized places that addenda and other information regarding this project will be posted.

B. The project will be advertised on the Bid4Michigan.com website and at Builders Exchange of Michigan, Lansing, MI; Construct Connect (formerly CMD), Norcross, GA; Construction Association of Michigan, Bloomfield Hills, Mi.; Dodge Data & Analytics. Cincinnati, OH.

C. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

2.03 EXAMINATION

A. Bid Documents may be viewed at the office of Architect.

B. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete.

C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.

D. Each bidder shall examine all drawings, specifications and all other data or instructions pertaining to the work. No plea of ignorance of conditions that exist or of difficulties of conditions that may be encountered, or of any other relevant matter concerning that work to be performed in the execution of the work will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill every detail of all the requirements of the contract documents, governing the work. The bidder, if awarded the contract, will not be allowed extra

compensation by reason of any matter or thing concerning which such bidder might have fully informed himself prior to bidding.

2.04 INQUIRIES/ADDENDA

A. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.

B. If any person contemplating submitting a bid is in doubt as to the true meaning of any part of the plans or specifications, or other proposed contract documents, or requesting a change, they shall submit to the Architect a written request for interpretation which shall be delivered to the Architect at least (7) days before the opening of bids. Any interpretation of the proposed documents will be made only by an addendum duly issued.

C. Such addendum will be posted in the same manner as original bid documents. If after the pre-bid meeting and approved bidders are known, notice of such addendum may be emailed to each approved bidder. It shall be the bidder's responsibility to make inquiry as to addenda issued. Any addendum issued during the time of bidding shall be included in the bid, and in closing a contract will become a part thereof.

D. Any verbal information obtained from or statements made by representatives of the Owner or Architect at the time of examination of the contract documents or site shall not be construed as in anyway amending the contract documents. Only such corrections or addenda as are issued in writing to all bidders shall become a part of the contract. Neither the Owner nor the Architect will be responsible for verbal instructions. Verbal answers are not binding on any party.

2.05 VOLUNTARY SUBSTITUTIONS

A. For a bid proposal to be accepted by the Owner, and considered for contract award, it must contain costs to perform the work exactly as specified. The bidder is required to perform all work, all materials, etc., as specified. Voluntary substitutions may be listed in the bid proposal by the bidder but will only be considered if the Contractor first bids on the work as specified. The bidder must be considered the lowest bonafide, qualified, bidder in the base specified bid before the voluntary substitution is considered.

B. If a bidder feels a product, assembly of products, or an equal solution is available to perform the same design intent, he shall contact the Architect for review and if approved, will be issued in an addendum as described elsewhere, as an "approved equal".

SITE ASSESSMENT

3.01 SITE EXAMINATION

A. The bidder shall carefully examine the site of each project and surrounding territory, the means of approach to the site and the structure of the ground and make all necessary investigations required to inform himself thoroughly and fully as to facilities for delivery, storing, placing and handling of materials and equipment and to inform himself fully as to all difficulties that may be encountered in the complete execution of all work in accordance with the contract documents.

B. For making appointment to visit the site and enter the building, bidders should contact:
Pam Oberski, Food Service Director, Ida Public Schools, 3145 Prairie Street, Ida , MI 48140 (Phone: 734-868-6117).

3.02 MANDATORY PRE-BID MEETING

A. A mandatory pre-bid meeting will be held at the time and place noted in the Advertisement for Bids. This meeting is for the Prime Contractors, (NOT Sub-Contractors), to gain knowledge about the project and submit proof of qualifications. The Architect’s Project Manager, will be at this meeting to collect proof of qualification documentation, clarify the bidding procedures, scope of work, identify any items of concern and answer questions from the Bidders for their preparation and submission of representative competitive bids. It is the Contractor’s responsibility to assure the Architect has been furnished all necessary documentation as listed below at or prior to this meeting. The Architect will assemble a list of bidders within seven days after the mandatory pre-bid meeting. The list will be limited to Contractors who attend the entire pre-bid meeting, have signed an official attendance list, and meet the minimum

Contractor qualifications as listed in the Instructions to Bidders, and the Advertisement for Bids. **Bids submitted by Contractors who are not on the approved bidders list or do not meet these pre-bid requirements will not be opened and will be returned to the bidder.**

B. See Contractor Requirements Section for list of Qualifications to be delivered to the Architect, **at or before**, the Mandatory Pre-Bid Meeting:

CONTRACTOR REQUIREMENTS

4.01 EVIDENCE OF QUALIFICATIONS

A. The following is a list of items to be delivered to the Architect, at or before, the Mandatory Pre-Bid Meeting:
   1. Contractor's Qualification Statement - AIA A305 Current edition (copies available from the AIA, www.documentsondemand.AIA.org) setting forth previous experience, references, physical plant and equipment possessed, description of organizations, financial resources, conformance with special requirements, qualification statement and such other evidence as may testify to his ability to carry out the contract..
   2. List of Job References for minimum 5 similar (type/size) projects with current contact names and phone numbers providing company experience.
   3. Resumes of key personnel including Project Manager and Project Superintendent providing individual's name, address, current driver's license or legal photo I.D, trade classification, years of trade experience and years employed by contractor.
   4. Equipment list providing physical plant and equipment possessed.
   5. Other such evidence as may testify to the Contractor's ability to carry out the contract.

4.02 SPECIAL REQUIREMENTS

A. All Contractors and Sub-Contractors shall comply with the following conditions:
   1. The main office of all Contractors, Sub-Contractors, and other bidders shall be located within approximately a fifty (50) mile radius from the job site.
   2. The Contractor and their Sub-Contractors shall give preference to using local firms for labor and materials where practical without sacrificing the quality, time schedule and cost of the project. Local is defined as that available within the boundaries of Monroe County.
   3. The Owner expects the Contractor to utilize local Sub-Contractors and suppliers when all other factors are similar and when it would serve the Owner's best interest. Other factors that will be used in awarding a contract include cost, past projects and performance, time schedule, qualifications, credit/financial history, bonding capability, etc.
   4. Contractor's Qualifications:
      a. Experience - The Prime Contractor shall have been in business under its present name and ownership for the last five (5) years. The Prime Contractor shall have completed a minimum of five (5) projects similar to this project, in type and size, using the materials and manufacturers as herein specified.
      b. Personnel - The Prime Contractor shall have a minimum of (3) regular full-time employees (Estimators, Superintendents, Laborers, etc.) on his company payroll that are qualified with the appropriate skills to perform the work specified. This excludes Owners/Officers of the company.
      c. Project Superintendent - Shall be sufficiently experienced to coordinate and be responsible to direct all workers and Sub-Contractors in the installation of the work and for taking instructions from the Owner/Architect. **The Project Superintendent shall be on the job site at all times that construction is in progress.** He shall also be responsible to up-date an accurate "As-Built" drawing of all trades on a daily basis to be submitted to the Architect at job completion.
      The same Superintendent shall remain on the job from beginning to end, unless written approval is given by the Architect, in advance. This is to avoid additional costs the Owner will incur should the Architect have to repeat directives, review changes, or any other additional services required to get the replacement Foreman educated with the project's details and scope.

d. Franchised Installer - The Prime Contractor, or any Sub-Contractor shall be franchised and approved by the manufacturer of the components, or system, which is to be installed for the last five (5) years. Contractor shall submit a letter from the component manufacturer, stating this Contractor's previous performance rating of installation of the component on the last ten (10) completed projects.
e. Equipment - The Prime Contractor shall possess sufficient equipment, tools, safety items, etc., to properly install the work and to ensure the necessary security and safety of the job site, the workers and the occupants.

5. As all of the above items are essential conditions for awarding a contract, the three lowest bidders shall submit the following required items no later than twenty-four (24) hours following the bid opening:
   a. Finalized Sub-Contractor list with each worker's name, address, social security number, trade classification, years of trade experience and years employed by Sub-Contractor. See other Divisions of these specifications that may set ratios of apprentices to journeymen.
   b. Anticipated material supplier list.
   c. Guaranteed Maximum percentage of mark-up values on change orders including Overhead, profit, bond, insurance, wage rates, and equipment rates for BOTH prime contractors and subcontractors.

   If the Owner awards a contract, sub-contractors shall not be changed by the Contractor unless approved in writing by the Owner. Request for changes shall be submitted by the Contractor, stating the reason(s) for the change, along with all supporting documentation.
6. Any bidder not in agreement or conformance with these conditions shall request a waiver at the time of submitting the bid. Otherwise if a contract is awarded to a Contractor not requesting a waiver, the Contractor will be required to conform as specified.
7. The contractor shall not employ and shall not subcontract with a subcontractor of any degree that employs, an individual required to be registered under Article 2 of 1994 PA 295, as amended, who will be assigned to work within a student safety zone, as that term is defined in 1994 PA 295, as amended.

   Neither the contractor nor subcontractor thereof of any degree shall assign to the Owner's Project any individual, and the Owner shall not allow any individual, to regularly and continuously work under contract in any of the Owner's schools if the reports on an individual's criminal history or criminal records check have not been received or if those checks would disclose or do disclose that individual has been convicted of a felony other than a "listed offense" as that term is defined in Section 2 of the Sex Offenders Registration Act, 1994 PA 295, as amended, or which disclose that individual has been convicted of a felony other than a "listed offense" unless the Superintendent and the Board of the Owner each specifically approve of the work assignment in writing. Additionally, the contractor agrees that it shall not assign any of its employees, agents or other individuals to perform, and shall not permit any of its subcontractors to assign personnel to perform, any services under this Agreement where such individuals would regularly and continuously work in the school district's facilities or program sites if such person has been convicted of any of the following offenses:
   a. Any "listed offense" as defined under Section 2 of the Sex Offenders Registration Act, MCL 28.722; or
   b. Any offence that would, in the judgment of the Board, create a potential risk to the safety and security of students served by the school district or employees of the school district; or
   c. Any offense enumerated in Sections 1535a (1) or 1539b of the Revised School Code, MCL 380.1535a(1) or MCL 380.1539b; or
   d. Any offense of a substantially similar enactment of the United States or another State.

      Any personnel of the contractor or of the subcontractors thereof of any degree that have been charged with any of the above-referenced crimes shall immediately report that circumstance to the Owner's superintendent and shall not be permitted to work in

any of the schools of the Owner during the pendency of the prosecution associated with such charge(s). The Owner reserves the right to refuse contractor's assignment of any individual, agent or employee of the contractor or subcontracted personnel of any degree to render services under this Agreement where the criminal history of that individual (including any pending charges) indicate, in the school district's judgment, unfitness to perform services under this Agreement. Violation of the above by the contractor or a subcontractor thereof shall be a basis for immediate termination of this Agreement. The contractor shall require language similar to the above in all of its agreements and/or contracts with its consultants, subcontractors, suppliers and materialmen of any degree.

8. Any and all personnel of the contractor, any subcontracted personnel, and/or any suppliers thereof of any degree, assigned to regularly and continuously work under contract in any of the Owner's schools shall be required to submit a signed Conviction Disclosure Form and a legal photo identification for a background check before being allowed on the construction site. (Copy of form included at end of this Division).
9. Contractor shall submit a signed and notarized copy of the Statement Regarding Familial Relationship with his Bid Proposal. (Copy of form included in bid specification packet.)
10. Contractor shall submit a signed and notarized copy of the Affidavit of Compliance Iran Economics Sanctions Act with his Bid Proposal. (Copy of form included in bid specification packet.)

BID SUBMISSION

5.01 DEPOSIT AND OPENING OF BIDS

A. Proposals shall be submitted and delivered in opaque envelopes addressed to **Bid Location** and clearly marked **Proposal.** There shall also appear name and address of the bidder.

5.02 PREPARATION OF PROPOSALS

A. Proposals shall be prepared only on the form provided by the Architect, and all spaces left for the purpose shall be fully filled in. All designations and prices shall be fully and clearly set forth, with the amount of the bid stated in words and repeated in figures. In case of variations the worded amount shall prevail. Erasures or other changes in the bid shall bear the signature of the bidder. Proposals must be signed.

B. The bids shall be on the basis of guaranteed sum. Bidders should not add any conditions or qualifying statements, the proposal shall not contain any added recapitulation of the work to be done nor will oral, electronic or telephonic modifications of the work be considered, as otherwise the proposal may be declared irregular.

5.03 BID PROPOSAL CLARIFICATIONS

A. Bidders shall submit prices for each proposal, alternate, unit price, or other requested bid amount. Bidders may elect not to bid the Alternate prices but may jeopardize their chances of being awarded a contract. The Owner has the right to award contracts to the bidder on the basis of any combination of base bid and alternate plus ay unit prices or other bid amounts that best serves the Owner's best interest.

B. The alternate numbering system does not reflect any priority. The Owner may select and award a contract on the basis of which alternates are in their best interest.

C. In the case where several separate Base Bid Proposals are requested, the Owner may award contracts on the basis of these proposals or a combined bid, to one Contractor or several Contractors, whose bid(s) serves the Owner's best interest. If the Base Bids are an either/or selection, the Owner may choose the Proposal (Base Bid or Optional Bid) that serves their best interest.

BID ENCLOSURES/REQUIREMENTS

6.01 BID GUARANTEES

A. No proposal will be considered unless it is accompanied by the bid guarantees as stated in the official Advertisement for Bids. Guarantees may be in the form of a certified check or a standard form of bid bond by a corporate surety licensed to underwrite bids in the State of Michigan (facsimile copies are not acceptable). Guarantee shall be in the amount of five percent (5%) of the amount of the bid submitted, or in the case of separate and combined bids, five percent (5%) of the total of the separate bids. Amount shall include Base Bid plus all Alternates. Guarantees shall be drawn in favor of the Owner.

6.02 RETURN & FORFEITURE OF BID GUARANTEES

A. The bid guarantees of all except the three lowest Bidders will be returned within fifteen days after the opening of bids. The guarantees of the three lowest bidders will be returned within three days after the executed contract and bonds have been finally approved by the Owner.

B. In the event of the successful bidder refusing to enter into contract, or failing to execute the contract and bonds within ten (10) days after formal notification of award of contract, then a sum not to exceed five percent (5%) of the amount of the bid shall be forfeited to the Owner due to lack of performance and as liquidated damages.

OFFER ACCEPTANCE/REJECTION/WITHDRAW

7.01 RIGHT RESERVED BY OWNER

A. The Owner reserves the right to waive any irregularities, reject any or all bids, or accept the bid that in the opinion of the Owner will serve the best interest of the Owner. The Owner also reserves the right to reject the bid of any bidder who has previously failed to perform properly, or to complete on time contracts of a similar nature, or who is not in a position to perform the contract, or who has habitually and without just cause neglected the payment of bills or otherwise disregarded his obligations to Sub-contractors, Material Men or Employees.

B. The ability of a bidder to obtain a performance bond shall not be regarded as the sole test of such bidder's competency or responsibility.

7.02 ACCEPTANCE OF OFFER

A. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Notice To Proceed.

7.03 WITHDRAW OF PROPOSALS

A. Any bidder may withdraw his bid at any time prior to the hour and date specified for openings. No bidder may withdraw his proposal for **Sixty (60) days** thereafter. Negligence on the part of the bidder in preparing his bid confers no right of withdrawal or modification of his bid after such bid has been opened.

ARCHITECT'S SERVICES

8.01 ARCHITECT'S BASIC SERVICES

A. The Architect will schedule and conduct a pre-construction meeting before work starts.

B. The Architect will make job site visits on a scheduled basis (or) on a random basis, (approximately one per week), during the course of construction. He shall be provided with access to all areas of work to ensure construction is proceeding in accordance with the contract documents. The Contractor shall schedule all sample mock-ups, questions regarding the project, any special meetings for Architect's review and approval during this visit.

C. The Contractor is responsible to notify the Architect 48 hours in advance for the following special visits:
   1. First day of job set-up to review material storage placements & general layout
   2. All excavations prior to backfill or concrete placement & during testing, after demolition, but before new materials are installed, to view concealed job conditions.

3. To review/approve all samples of construction before Contractor continues with the work. Sample areas may be described in other Divisions of the Specifications - this may also include special visits by manufacturers of systems.
4. When observations/reviews/approvals are made by representatives of Manufacturers and Suppliers
5. The Contractor shall submit a notice of completion letter to the Architect in writing when all work is complete and ready for a punch list. Under the normal services, the Architect will make (1) punch list visit, (1) re-punch and (1) random final check. The initial punch list will be made by the Architect in the presence of the Contractor and the Owner to determine what items may need corrections and if the project is substantially complete. One week's advance notice is required.

   The punch list will be written up by the Architect and describe general and/or specific items in general locations. It is the Prime Contractor's responsibility to also make a list of his own, dealing with the specifics and translate them to the proper Sub-Contractors.

   If the Architect arrives at the job site and the project is not done and ready for a punch list, but rather a "to do list", the Architect has the right to leave and will only return when notice of completion is again received in writing. This process will use up (1) of the normal punch/re-punch visits.

   The first re-punch and the final random re-punch visit shall again be requested in writing, similar in format to the initial punch list.
6. The punch and re-punch list include physical items in the field requiring completion, as well as paperwork items that must be submitted prior to job "close-out" and "final completion" as noted in the General/Special Conditions. Final payment can only be considered once all items are completed to the satisfaction of the Owner/Architect.

8.02 ARCHITECT'S ADDITIONAL SERVICES

A. The contractor should review the special conditions for any applicable liquidated damages that apply for failure to meet "substantial" or "final completion" dates. In addition to these costs, or in the event that liquidated damages are not part of this contract, the contractor is responsible to reimburse the owner for the direct costs incurred for additional time by the architect, administrative/custodial staff, attorney, etc., when the project goes beyond the established dates and the cause of the delay is not beyond his control.

B. The Contractor will be responsible to pay for all additional Architectural services, including all special visits requested by the Contractor to resolve problems that are due to the lack of performance by the Contractor. Examples of certain circumstances which will cause the Contractor to incur additional Architectural service fees include, but are not limited to the following:
   1. Shop drawing submittals that are rejected due to being incomplete or for submitting on materials other than as specified and noted on the Bid Proposal Form.
   2. Contractor elects to use more than (1) Sub-Contractor for any trade that results in duplicate shop drawing submittals.
   3. Contractor requests a punch list in writing and Architect finds the work incomplete.
   4. If the Contractor fails to complete all punch list items within the (3) punch/re-punch visits allowed, the costs for all additional punch list visits will be deducted from the final cost amount due to the Contractor to cover any Architect's, Owner's, or Attorney's additional services at their regular billing rate until the work is accepted by the Architect and Owner.
   5. Contractor installs other than approved materials, resulting in additional time incurred by Architect.
   6. Contractor changes job Foreman or fails to have job Foreman present on job when visited by the Architect, which requires Architect to educate new Foreman to job status or repeat instructions.
   7. Contractor's layout or installation is found to be significantly different than the design or shop drawings and the Architect is required to review, approve, or make extensive revisions.

8. Contractor's failure to promptly correct or make good any problem that is part of this contract work and falls under the Contractor's responsibility to properly work as intended, either during the course of construction, or during the close-out period, all of which requires additional time by the Architect for reviews, observations, etc.
9. All Architect's/Engineer's time to close out the project beyond the thirty (30) days after substantial completion, including making phone calls, writing letters, reviewing documents, special close-out meetings, etc., unless a time extension has been approved with a signed change order.
10. Note: All additional time required by the Architect to resolve any of the above items will be back charged against the contract amount based on the Architect's/Engineer's current hourly rate and made payable to the Architect by the Owner. The Contractor shall be informed by the Architect within ten (10) days of any incident of any intent to invoke back-charges for additional Architectural services. It shall be the Contractor's responsibility to request in writing any estimates of additional costs to be incurred. Contractor's failure to respond to the estimate in a timely manner will be interpreted as Contractor's acceptance of all additional Architectural services for back-charges as summarized by the Architect.

END OF SECTION

Type on contractor's letterhead with complete address, phone numbers, federal and state ID#

LETTER OF WARRANTY

Re: Kitchen Exhaust Hood Replacement
at Ida Elementary School
7900 Ida Street, Ida, MI 48140
for Ida Public Schools
3145 Prairie Street
Ida, MI 48140
Architect's File #26002

Date:

We hereby warrant that the work, described as _____, which we have completed at the above mentioned project, has been done in strict accordance with the drawings and specifications and that the work installed will fulfill the requirements of those specifications. We agree to repair or replace or cause to be repaired or replace any or all of work which may prove to be defective in workmanship or materials, together with any adjacent work which requires repair or replacement because of our defective work, within a period of _____ year(s) from date of Certificate of Occupancy or date of final payment by the Owner, whichever is later, ordinary wear and tear and unusual abuse or neglect excepted.

If we fail to commence to comply with the above paragraph within 10 days after receipt of written notice from the Owner to do so or fail to pursue such compliance with diligence, we, jointly and severally, do hereby authorize the Owner to proceed to have the defects repaired and made good at our sole expense, and we will honor and pay the costs and charges for it together with interest at the maximum rate permitted by law upon demand. If we fail to fulfill the preceding obligations, and if the Owner brings an action to enforce this warranty, we agree to pay the Owner's reasonable architect's, attorneys and staff fees incurred in connection therewith.

This guarantee does not limit the requirements for liability and responsibility as covered by the State of Michigan Statute of Limitations, or equipment and manufactured items, which have extended warranties.

_____

Signed

_____

Printed Name / Title

List bonding company, address, phone number, as well as the local bonding agent with same information.

IDA PUBLIC SCHOOLS

Conviction Disclosure Form – New Employees

I UNDERSTAND THAT THE INFORMATION REQUESTED IS REQUIRED BY THE CENTRAL RECORDS DIVISION OF THE MICHIGAN STATE POLICE, LANSING, MICHIGAN. I FURTHER UNDERSTAND THAT A CONVICTION RECORD DOES NOT NECESSARILY PREVENT ACCEPTANCE OF EMPLOYMENT. I AUTHORIZE IDA PUBLIC SCHOOLS TO UTILIZE THE INFORMATION BELOW FOR THE PURPOSE OF OBTAINING INFORMATION REGARDING A CRIMINAL CONVICTION.

Name:

_____

Last First Middle

Maiden name or names previously used: _____

Birthdate: _____ Race: _____ Sex: _____

Building: _____ Assignment: _____

Pursuant to Public Act 138 of 2005, I represent that (check all that apply):

_____ 1. I have not been convicted of or pled guilty or nolo contendre (no contest) or am the subject of a finding of guilt by a judge or jury of any crime.

_____ 2. I have been convicted of, or pled guilty or nolo contendre (no contest) or am the subject of a finding of guilt by a judge or jury for the following crimes (attach a separate sheet of paper to explain the criminal offense, date, court, city/state, and circumstances surrounding the conviction):

Felony _____ Misdemeanor _____

Felony _____ Misdemeanor _____

Felony _____ Misdemeanor _____

In signing this form, I understand and agree that:

3. If I have been convicted of a listed offense, my employment shall be terminated. I also understand that if I have been convicted of a felony, other than a listed offense, the superintendent, or chief administrator and the School Board must approve, in writing, my employment or work assignment.

4. Until the criminal history report is received and reviewed by the employing school district, I am regarded as a conditional employee and if the criminal history report is not the same as my representation(s) above, my employment contract is voided at the option of the school district.

_____ _____

Signature Date

SECTION 007400
SUPPLEMENTARY AND SPECIAL CONDITIONS

PART 1 GENERAL

1.01 CONTRACTS, BONDS AND INSURANCE

A. Contract
1. The Architect will prepare the AIA Document A101-2017, Standard Form of Agreement Between the Owner and Contractor based on the bid amount agreed by the Owner. Successful bidders will be required to furnish bonds and insurance in accordance with the provisions of the General Conditions. Executed duplicate copies of bonds and insurance certificates will be required for each set of contract documents. On this project the Owner elects not to require “Project Management Protective Liability Insurance”.
2. All conditions of all contract and sub-contracts for labor and material to be furnished on this work shall be as set forth in the General Conditions for Building Contracts, Form A-201-2017, latest edition of the American Institute of Architects. Where there is a difference between this project manual and Form A-201, this project manual shall govern. All Contractors and Sub-Contractors shall familiarize themselves with all conditions of this form and be bound by them. (Copies available from the AIA, www.documentsondemand.AIA.org, at cost.)

B. Guarantee Bonds:
1. Article 11.5 of the General Conditions shall be supplemented as follows:
   a. "Prior to signing the contract, Contractor shall pay the premium for and furnish Performance Bond in the full amount of the contract price to cover faithful performance of the contract, and a Labor and Materials Bond in full amount of contract price to cover payment of all obligations arising thereunder. Bonds shall be in such form as Owner may prescribe and with such sureties as he may approve."
2. In lieu of the Performance and Labor Bond as stated above, and if allowed in the bid advertisement and the project contract cost including Alternates, is under $50,000.00, the Contractor may perform the work to the point of total completion before receiving any payments. The payment will be issued upon completion of all physical and paperwork. However, the Contractor's bid surety (certified check only of 5% of bid) will be held by the Owner until completion. On any work with a contract cost of $50,000.00 or more, a 100% Performance/Labor Bond must be provided.
3. An irrevocable Letter of Credit from a local Monroe County banking institution in the amount of the contract is allowed in lieu of a Performance and Labor Bond. The irrevocable Letter of Credit must conform to standards of the “Uniform Customs and Practice for Documentary Credits, 1983 Revision, The International Chamber of Commerce Publication No. 400”.

C. Insurances:
1. Article II of the General Conditions shall be supplemented as follows:
   a. "Insurance shall be written for amounts as required by law or not less than the following limits of liability" for personal and property loses:

General Aggregate	= $2,000,000.00
Producst and Completed Operations Aggregate	= $2,000,000.00
Personal & Advertising Injury	= $1,000,000.00
Each Occurrence	= $1,000,000.00
Medical Expense	= $ 5,000.00
Automobile - Owned/Non-Owned	= $ 1,000,000.00

   b. The Owner shall provide and pay the premium for Owner's liability and builders risk insurance.
   c. Contractor shall provide certificates of coverage for necessary unemployment insurance, workman’s compensation, etc., as required by the State of Michigan and the Federal Government.

d. Contractor shall provide and pay the premium to add the Owner and Architect as additional insured to the insurance coverage for this work (See this section for Hold Harmless / Indemnify). (This is to cover any claims against Owner/Architect due to Contractor's negligence.)
e. Only Certificates of Insurance Certified using Accord Form #25-S (7-90) will be acceptable. All insurance shall be carried with companies authorized to do business in the State of Michigan and which are satisfactory to the Owner. See sample certificate at end of “Instruction to Bidders”.
f. The insurer shall agree to notify the project Owner prior to termination, or reduction of any insurance coverage. The certificate shall include the following statement, "30 Day Notification in Case of Cancellation", and shall contain no disclaimers.
g. The Contractor shall require his Sub-Contractors who are not protected under his liability and workman's compensation insurance to purchase and maintain their own insurance of the same types and limits as is required of the Contractor.

1.02 EXAMINATION OF SITE, MEASUREMENTS & LEVELS:

A. Bidders shall visit the site of the work, compare the drawings and specifications with any work in place, and inform themselves of all conditions, including other work, if any, being performed. Failure to visit the site will in no way relieve the successful bidders from the necessity of furnishing any materials or performing any work that may be required to complete the work in accordance with the contract documents without additional cost to the Owner.
   1. Each Contractor shall be responsible for the correct installation of his work to comply with the plans and specifications.

1.03 GENERAL CONTRACT

A. Local Labor & Materials - Each Contractor shall give preference to the employment of local labor and the purchase of materials locally where same are available at prices equivalent to those obtainable elsewhere.

B. Current Laws - The Contractor shall keep himself fully informed of all laws and municipal ordinances and regulations in any manner affecting those engaged or employed in the work, and all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall, at all times, observe and comply with all such current laws, ordinances, regulations, orders and decrees which are effective during the progress of the work; and shall protect and indemnify the Owner and its officers and agents against any claim or liability arising from or based on the violations of any such law, ordinances, regulation, order or decree, whether by himself, his Sub-contractors, or his employees.

C. Collusion - If at any time it shall be found that the person, firm, or corporation to whom the contract has been awarded has, in presenting any bid or bids, colluded with any other party or parties, then the contract so awarded shall be null and void, and the Contractor and his sureties shall be liable to the Owner for all loss or damage which the Owner may suffer thereby and the Owner may advertise anew for bids and said work.

D. Responsibility - The Contractor is primarily responsible for all work. He shall coordinate all Suppliers, Sub-Contractors, etc., that he may contract work with. He shall notify all Sub-Contractors in advance to avoid any unnecessary delays. The Contractor shall assume responsibility for the general charge and security of the building within the contract limits until it is accepted by the Owner. Contractor shall be responsible for maintenance of his work until final acceptance by Owner, and shall take such measures as necessary to ensure adequate protection of equipment and materials during delivery, storage, installation, start-up, temporary operation and shut-downs and any damage, vandalism, thievery, etc., to stored, or installed materials or any part of this construction.

E. General/Prime Contractor’s Responsibility - It is the General Contractor’s responsibility to provide and install all items specified in this contract, to assemble and collect all parts, materials, equipment, labor, etc. as required for a complete finished installation. Where these documents state, for clarification purposes that the work or item is to be completed by certain trades or Sub-contractors, (i.e. Mechanical or Electrical Contractor), it shall be referenced only

to those related divisions. These specifications and drawings do not control the Contractor in dividing the work among his workers, Sub-contractors, suppliers, etc., or in establishing the extent of work to be performed by any trade.

F. Lay Out - The Contractor shall immediately locate all general reference points and take such action as is necessary to prevent their destruction; lay out his work and be responsible for all lines, elevations and measurements of buildings, grading, paving, utilities and other work executed by him under the contract. He must exercise proper precautions to verify figures shown on drawings before laying out work and will be held responsible for any error resulting from his failure to exercise such precaution.

G. Cooperation & Courtesy - There must be complete co-operation between all Contractors, as well as between Contractor and Sub-Contractor, to insure satisfactory performance of all work. Foul language, alcoholic beverages and illegal or controlled substances/drugs will not be allowed by anyone under the control of this Contractor. Tobacco usage will also not be allowed where prohibited by law or by the Owner’s wishes/policies. Courtesy must be exercised towards the owner, their staff and customers, deliverymen, etc., at all times.

H. Skilled Labor - All labor on this project shall be done by skilled mechanics, qualified and competent to perform the best grade of workmanship in the trade of work being performed, such as a Roofer shall not perform finish carpentry or drywall work in an exposed location.

Each Contractor and Sub-contractor shall provide a competent foreman at the job, who shall be responsible for taking instructions from the Architect and directing and installation of the Contractor's work.

I. Equal Opportunity - It shall be understood that the Contractor shall comply with the State Policy of Equal Employment Opportunity established by the Michigan Civil Rights Commission. The following Civil Rights Laws must be conformed to:

1. Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C., Section 2000d et seq., which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance
2. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C., Section 794, which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance.
3. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C., Section 1681 et seq., which prohibits discrimination on the basis of sex in education programs and activities receiving Federal financial assistance.
4. The Age Discrimination Act of 1976, as amended, 42 U.S.C., Section 6101 et seq., which prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.

J. Hold Harmless/ Indemnify Clause - The Contractor agrees to comply with all laws and regulations applicable to the work to be performed and will indemnify, defend and save harmless the Owner and Architect and said property from damage which may arise as a result of the work performed and list each on certificates of insurance as additional insured, if Project Management Protective Liability Insurance is not provided.

K. Shop Drawings & Data Sheets - Submit shop drawings per 013000 - Administrative Requirements for review by the Architect. A copy of all shop drawings shall be kept at the job site by the Contractor. The Contractor shall review and stamp approved, note changes, etc.,before submitting to the Architect.

Shop drawings are not contract documents. Their purpose is to demonstrate the way the Contractor proposes to conform with the information given on the Architect's drawings. Shop drawings shall be submitted on all pre-manufactured items, custom fabricated components, any individual component that fits with or into another component to form the entire assembly, or on items specifically specified in certain divisions.

The Contractor, his Sub-Contractor and Supplier shall be responsible to determine and verify all materials, field measurements and field construction data, prior to submittal to the Architect.

The Architect's review is only for the limited purpose of checking conformance with information given and the design concept expressed in the contract documents. The Architect's review is not conducted for the purpose of determining the accuracy and completeness of details, such as dimensions, quantities and the assembly of specific components to work as a whole. The Architect is also not responsible for any safety precautions, construction means, methods, techniques, sequences or procedures.

It shall also be the responsibility of the Contractor, his Sub-Contractor or Supplier to work from a full set of contract documents in preparation of the shop drawings, so that each part or component will work with those parts as furnished or fabricated by others, so that the assembled whole works together as intended.

Shop drawings shall be submitted to the Architect early enough to allow adequate ordering, fabricating and delivery to the job site. Once received by the Architect the shop drawings will be returned to the Contractor in a timely manner. For estimating purposes and fitting into the job progress construction schedule, the following estimates of time may be used: Engineered reviewed drawings - 14 days; in-house Architectural reviewed drawings 7-10 days. Failure by the Contractor to submit enough in advance to the Architect in no way relieves the Contractor from completing the work in the time frame specified. The Contractor relieves the Architect of all responsibility and liability should he proceed with construction, fabrication or delivery of the specified part(s) without obtaining the Architect's review first.

Data sheets, manufacturer's specifications, picture cuts, etc., shall be submitted for all materials proposed to be used in this contract. All materials shall be asbestos free, 100%. No use of any materials, glues, sealants, gaskets, etc., containing any trace of asbestos shall be used on this project. Data Sheets shall clearly state the product's composition, or that no asbestos is used.

All finish materials and/or their adhesives for securing to substrates, shall meet the A.D.A. (American Disability Act), as passed July 1990 and revised September 15, 2010 to regards to elimination of toxic/allergic chemical contamination via direct vapors/fumes, or when in contact with normal spilled materials and cleaning agents.

Submit at the beginning of the project an index sheet listing all proposed shop drawings to be submitted.

L. As-Builts - The Contractor shall keep an accurate record of all deviations from the contract drawings and specifications. He shall neatly and correctly enter in pencil any deviations on the drawings affected and shall keep drawings available for inspection. Extra set of transparencies will be furnished for this purpose. Submit As-Builts per 013000 - Administrative Requirements and 017000 - Execution and Closeout Requirements for review by the Architect.

M. Manuals & Brochures - The Contractor shall submit per 013000 - Administrative Requirements and 017000 - Execution and Closeout Requirements to the Architect at completion, maintenance manuals, instructions, parts, etc., of all items installed as part of this work. Include all warranties, application for extended warranties, etc. These items shall be submitted as shop drawings.

N. Debris - All rubbish resulting from the work herein specified shall be removed from the premises as fast as it accumulates.

1.04 DEFECTIVE WORK & GUARANTEE:

A. The Contractor shall maintain his work in good condition, and repair at his own expense any work or material which proves to be defective within one (1) year from the time of final payment. A specific time can be determined towards the end of job, but it is estimated as approximately thirty days after substantial completion. This shall not be construed to cover misuse or abuse. Submit the guarantee in writing to the Architect upon completion. Specific material, equipment, or special trade warranties and guarantees as noted in these specifications shall also be submitted in writing. All warranties shall be written using the format and language as in sample warranty listed at the end of this section. Included, but not limited to, shall be the following:
   1. All Sub-contractors shall submit a signed written warranty same as the general contractor.
   2. All warranties shall be addressed to the Owner, on Company’s letterhead.

3. All equipment warranties shall start from date of project substantial completion in the phases noted – not the dates the equipment was installed or started up.
4. All work under this contract, in addition to the roof, shall be watertight and leak proof throughout at every point, and in every area, for a period of (1) year from date of final payment, except where leaks can be attributed to damage caused by external forces beyond the Contractor's control. The Contractor shall immediately, upon written notification by the Owner, respond to the site to determine the source of water penetration and if found to be caused from faulty materials/workmanship resulting from this contract, repair or replace the item(s) or do any other work necessary to make watertight at his own expense.
5. Contractor shall also, at his own expense, repair or replace, or reimburse the Owner for any damaged materials, finishes, and furnishings/contents damaged as a result of this water penetration, in order to return the premises back to the same condition prior to the water penetration.
6. In addition to the warranties as stated in this manual, the Contractor shall comply with all other warranties referred to in any portions of the contract documents or otherwise provided by law or in equity, and where warranties are in conflict, the more stringent requirement shall govern.

B. Neither the final certificate nor payment shall relieve the Contractor of responsibility for lack of conformance to the contract documents, lessening the quality of specified work or scope, errors, negligence, faulty materials or faulty workmanship within this contract, the period provided by law at the location of this project, or any special equipment/material warranties.

C. The Contractor shall bear the cost of correcting mistakes, which by a reasonable check he could have avoided.

D. The Contractor shall promptly remove from the premises all materials, whether worked or un-worked and take down and remove all portions of contract work demanded by the Architect or his representative as failing to conform to the contract.

E. The Contractor shall promptly replace and re-execute the work in accordance with the contract and shall bear expense of same, together with the expense involved in making good all work of other Contractors destroyed or damaged by each removal or replacement. If the Architect deems it expedient to accept work injured or not done in accordance with the contract, the difference in value, making a full allowance for damage, shall be deducted from the contract sum if acceptable to the Owner.

F. Each Sub-Contractor shall warrant that all work installed by his company, including that movable or adjustable, shall remain in good working order and agrees to remedy and correct and place in proper operating condition all such found not in good working order during the period of warranty unless such work has been abused or neglected by the Owner.

1.05 DEFINITIONS:

A. Architect - Shall be interpreted to mean **Kohler Architecture, Inc.**, or his authorized representative.

B. Contractor - Shall be interpreted to mean the Prime Contractor who has a direct contract with the Owner. (assumed General Contractor)

C. Owner - Shall be interpreted to mean **Ida Public Schools**

D. Sub-contractor - Shall be interpreted to mean any person or entity who has a direct contract with the Prime Contractor, either supplying labor or materials.

The Prime Contractor shall employ only (1) Sub-Contractor/Supplier for each trade/category of work for the entire contract, or in the case of multiple building/sites, (1) Sub-Contractor/Supplier in each trade/category for all sites/buildings. This improves coordination and project scheduling, reduces shop drawing and payroll reviews, and standardizes materials and installation.

E. Substantial Completion - Shall be defined to mean when the Architect establishes in writing, based on his knowledge, observations and beliefs, that all necessary components are installed

for the project to be acceptable for the Owner's intended use and beneficial occupancy, including the Contractor obtaining governing agency approvals (City, Township, County, and/or State) on all permits issued on this project. The project must meet substantial completion no later than the date established elsewhere, unless amended by change order.

F. Final Completion - Shall be defined to mean when all work, including completion of all punch list items, paper work has been submitted (guarantees, final waivers, as-builts, etc.) and the Architect approves the Contractor's final certificate for payment.

1.06 SPECIAL CLARIFICATIONS:

A. Manufacturer's Specifications - All materials, items, equipment, etc., shall be installed in accordance with the manufacturer's specifications and recommendations when not otherwise specified. These specifications do not replace or override any installation manuals/directions. The installer shall provide all materials and perform all work that is needed for this application, whether specialized to this installation or not, as required and/or recommended by the manufacturer so as not to void any warranties and functions properly so that each component becomes part of the entire assembly.

B. Where a material or installation is specified in these specifications and is in conflict with manufacturer's recommendations, the Contractor shall immediately notify the Architect before proceeding with the work. Failure to do so will place full responsibility upon the Contractor performing the work.

C. Methods of Construction - The Contractor takes full responsibility and liability for the means and methods of construction to perform the work under this contract. The timing, scheduling and skill of workers and suppliers shall be coordinated prior to beginning any work. The type of equipment, installation, sequence, temporary provisions, etc., all as required to produce the finished product for a first-class installation shall be determined by the Prime Contractor. Any delays, errors, omissions or any other problems caused to the job by a change in Sub-contractors or suppliers, bad scheduling, lack of supervision, material deliveries, etc., shall be borne by the Prime Contractor.

D. Changes - These drawings and specifications are provided to give the Contractor an understanding of the systems and materials to be installed under this contract. Where the scope of work or details are in conflict with job conditions, the manufacturer's specifications, manufacturer's guarantee, etc., they shall be modified as required by the Contractor. The Architect shall be notified prior to any change. When these details exceed the manufacturer's requirements and the guarantee, no change shall be made, unless so directed by the Owner or Architect, and the work shall be performed in strict accordance to these drawings and specifications.

When a change is initiated either by the Owner, Contractor or Architect, the Contractor shall submit a cost breakdown of the change for approval by the Architect and Owner, before proceeding with the work. Any change in completion date shall also be documented. A formal Change Order, signed by the Owner, Contractor and the Architect will follow to authorize the work to be done and the contract amount and/or completion date to be changed. A Change Order must be fully executed before including on pay requests.

E. To insure the intent of the contract documents are being complied with and since the Architect is not providing full time inspection/observation services, the Contractor shall perform the following:

1. On all demolitions, removals, excavations or existing concealed conditions, the Contractor shall certify that conditions found were as anticipated, or as specified in the contract documents. If the above conditions are closed-up, covered, or back-filled prior to notifying the Architect or prior to his scheduled inspection, the Contractor shall document with photos, measurements and/or sketches how the concealed conditions were constructed.
2. Should the Contractor become aware of any deviations, unusual circumstances, cause for extra work, or other reasons he feels may have an effect, or cost change on this contract, he shall immediately notify the Architect for directions.

3. Contractor's failure to notify the Architect/Owner, prior to performing the additional work, accepts full responsibility for any extra costs, delays or non-acceptance by the Owner or Architect that may be produced or incurred to the contract.

F. Discrepancies - Should the contract documents disagree (drawings and specifications), the better quality or larger quantity of materials or work shall be included in the bid and unless otherwise ordered in writing, shall be furnished by the Contractor.

G. Standard Codes - Reference made to standard specifications or codes refer to latest edition unless otherwise noted. Such reference includes current addenda and errata, if any. All work shall meet or exceed all zoning and code requirements, including the current Michigan Building Code, or as adopted by the local building authority, and State Fire Marshal.

H. Organization - The organization of the specifications into Divisions, Sections and Articles, and the arrangement of drawings shall not control the Contractor in dividing the work among Sub-contractors or in establishing the extent of work to be performed by any trade.

I. Materials - Shall be new. Seconds or damaged materials will be rejected by the Architect, who reserves the right to disapprove and reject any materials proposed or installed, which in his opinion fail to meet quality standards specified. Contractor shall, at his expense, remove and replace with approved materials, any rejected materials.

J. Labor - As noted elsewhere, it is the Prime Contractor's responsibility to keep the job moving according to the progress schedule and meet completion dates specified or stated in the Bid Proposal. Whether Workers/Sub-Contractors/Suppliers are union or non-union, default, quit, fail to perform, it is the Prime Contractor's responsibility to work out problems that may occur to keep on schedule and prevent any damages, delays, or disturbances caused to the Owner and/or job site.

1.07 DAMAGE & REPAIRS TO SITE & BUILDING:

A. The site, building and furniture or equipment, including such items as walls, ceilings, floors, roofs, trees, drives, walks, curbs, gutters, paving, grade areas, etc., cut up or damaged during construction of this project shall be repaired or replaced in a neat and workmanlike manner, to the satisfaction of the Owner and Architect, by the Contractor responsible.

B. The Contractor shall be responsible for the security, water tightness and systems operation of the building in areas of this work. Any vandalism, water damage, theft, electrical/mechanical damages, etc., to the building or its components or any stored or installed materials as part of this work, or furniture and equipment (ceilings, floors, walls, desks, computers, books, papers, etc.) shall become the Contractor's responsibility to restore (replace or repair) all items to their same condition as when the work started. Included, but not limited to, shall be all additional costs for Architects, Attorneys and Owner's staff time to clean up, document and resolve any damages or issues.

1.08 PROGRESS PAYMENT:

A. Owner shall make payments on account, upon issuance of certificates of payment by the Architect, for labor and materials incorporated in the work and for materials suitably stored at the site, up to ninety percent (90%) of the value thereof. Properly documented invoices shall be submitted for all stored materials. Pay requests shall reflect only the work stored or completed at date of submittal to the Architect. No projections of cost for anticipated work beyond the submittal date will be allowed.

B. Payments shall stop at 90% of the total contract, until project is SUBSTANTIALLY COMPLETE (Owner's use) and until governing agency (Governing Building Authority) has given approval. (See Substantial Completion definition in Section 1.1D-5)

C. Final payment will be made when the work is FULLY PERFORMED and FINAL COMPLETION is achieved.

D. Certain specialty construction projects are subject to other payment conditions, such as re-roofing, re-paving, etc. (see Special Payment Conditions at end of this Division, if applicable).

E. Also see Instructions to Bidders for any other requirements.

1.09 LABOR RATES

A. State Funded Projects
   1. On all State projects or state funded projects, the contractor shall abide by the minimum wage rates, employment standards, occupational classifications, etc., as issued by the Federal and State Department of Labor, per the Federal Register (for prevailing rates for this project, see attached sheet at the end of this section. Contractor's labor rates must be submitted with each pay request. HUD Form WH 347 (available at the Architect's office) or another form similar with same information shall be used.
   2. The rate schedule will remain current for the entire length of the project, providing the contract is awarded before the listed award date as noted at the top of page one of the published rates. For clarification, contact the State of Michigan, DELEG, Wage and Hour Division at address as listed on the rate schedule.

1.10 TIME OF COMMENCING & COMPLETION:

A. Contractor, upon award of contract, shall begin immediately to order materials so work can begin with no delays in material deliveries.

B. All auxiliary Sub-contractors (Electrical, Carpentry, etc.) performing work under this contract at same time that Contractor is doing work, are obligated to commence, carry on, co-ordinate and complete their work in the various stages, so that the whole job will be accomplished in a scheduled manner and so that the Prime Contractor will be able to complete his work within completion time fixed.

C. To assure that all materials are placed on order and their delivery to site does not cause any unnecessary delays, the Prime Contractor shall submit transmittals, or copies of purchase orders, confirmations from the Sub-Contractor or the Supplier, along with delivery dates to the Architect for his records. This information shall all be submitted at same time, along with a weekly bar graph progress schedule, as prepared by the Prime Contractor. All schedules, purchase orders, etc., shall be submitted and approved by the Architect before any contract work begins.

D. For purposes of determining the date that contract may be awarded and for ordering materials, and submittal of shop drawings, the date of **05-09-2025** shall be used.

E. Physical Work shall begin as soon as weather permits starting **06-12-2025** so that the completion date is achieved. On site storage of materials before this date will only be allowed in a locked trailer at Contractor's expense and with Owner's advanced approval.

F. All work on this project shall be "**Substantially Completed**" on or before **08-15-2025, at 5:00 P.M.**, or sooner as stated in the bid proposal by the bidder. See this Division regarding Liquidated Damages. All work, including punch lists, paper work, etc., as described for receiving final payment and termed "Final Completion" shall occur within thirty (30) consecutive days after the "Substantial Completion" date. (See Liquidated Damages Section for damages should dates not be met.)

G. The above dates/schedules are based on current delivery of equipment, estimated man-hours, and anticipated weather conditions for the scope of work. Contractors shall verify availability of all materials during the bidding process and list on the bid proposal the manufacturers of equipment that will not conform to this schedule. Should the equipment manufacturers as specified, not fit the anticipated schedule, list other equal equipment in area provided on bid proposal for substitutions, along with any cost changes for the Owner's consideration

1.11 HAZARDOUS MATERIAL:

A. If any Contractor during the course of construction, or work, observes the existence of asbestos, lead base paint, P.C.B., or other hazardous materials in the structure or building, or in area of work, the Contractor shall promptly notify the Owner. The Owner shall consult with their environmental consultant regarding removal or encapsulation of the questioned material. The Contractor shall not perform any work pertinent to the hazardous material prior to receipt of special instructions from the Owner. Any work involved with hazardous material removal, handling, etc., shall NOT be part of this Contract or any Field Orders relating to this Contract.

B. On this particular job and in the area of work, or related area that may be affected due to this work, certain hazardous materials may exist and if known will be properly identified or made known to the Contractor by the Owner. It is the Contractor's responsibility to exercise care in performing all operations of this work to not disturb or affect these materials, either directly, or in-directly (such as water damage, materials dropped, etc.). If an incident should occur, the Contractor shall immediately notify the Owner and his insurance company and safeguard the area. The Owner will make an inspection and advise of all procedures to be implemented. It is the Owner's responsibilities to contact their hazardous material consultant and perform all work to test, remedy and enclose the situation, all at the Contractor's expense. The cost will be deducted from the contract amount, or the Contractor's insurance company will reimburse the Owner directly.

C. The Architect shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to asbestos and hazardous materials in any form for the project.

D. The Contractor shall inform himself of the presence of asbestos/hazardous materials which may be present in the buildings by reviewing the Owner's copy of the A.H.E.R.A. Management Act (Asbestos Hazards Emergency Response Act), which is available in each building, or by contacting the Owner.

E. The Contractor shall be responsible to inform all workers of all known hazardous materials present at the job site prior to starting any work and instruct each worker on the proper safeguards required, so as not to disrupt any encapsulated or contained hazardous materials.

1.12 SALVAGEABLE ITEMS:

A. All existing items called for to be removed, or are abandoned, or are in the way of this new work, shall be completely removed and disposed of offsite at a licensed disposal facility by this Contractor unless noted differently.

B. See related Divisions - 024100 - Demolition and Patching, Mechanical and Electrical Divisions.

1.13 LIQUIDATED DAMAGES & COMPLETION OF WORK:

A. It is hereby understood and mutually agreed, between the Contractor and the Owner that the date of completion, as specified in the Proposal, is an essential condition of this Contract, and that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and prevailing industrial conditions.

B. If the Contractor shall fail, neglect or refuse to **SUBSTANTIALLY COMPLETE** the work within the time herein specified, or within any proper extension thereof granted by the Owner, the Contractor does hereby agree, as a part of the consideration for awarding this contract, to pay to the Owner the amount specified herein as Class A liquidated damages for each and every calendar day that the Contractor shall be in default after the time stipulated for SUBSTANTIAL COMPLETION of the work. The amount of Class A liquidated damages shall be deducted from the estimated amounts coming due and payable to the Contractor at the rate of **$1,000** per day, after the date as specified in the special conditions for SUBSTANTIAL COMPLETION.

C. If the Contractor shall neglect, fail, or refuse to obtain **FINAL COMPLETION** of the contract and final acceptance of the project by the Owner within the time herein specified, or with any proper extension thereof granted by the Owner, then the Contractor does hereby agree, a part of the consideration for awarding this contract, to pay to the Owner the amount specified in the proposal as Class B liquidated damages for each and every calendar day that the Contractor shall be in default after the time stipulated for FINAL COMPLETION and acceptance of the project by the Owner. The amount of Class B liquidated damages shall be deducted from the estimated amounts coming due and payable to the Contractor at the rate of **$100** per day, after the date as stated in the special conditions for FINAL COMPLETION and acceptance of the project by the Owner.

D. The Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault due to unforeseeable cause beyond the

control and without the fault or negligence of the Contractor, including but not restricted to acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather.

E. Request for the extension of time for completion beyond the completion date noted in the Invitation to Bid may be requested in writing of the Owner by the Contractor. Such request to be considered must show reasons beyond the control of the Contractor. All requests shall be submitted within five (5) days of when problem becomes known to the Contractor.

1.14 TEMPORARY FACILITIES:

A. Enclosures - Contractor is responsible for any damage to all materials, stored or built into this work under this contract, due to elements of the weather, vandalism, theft, fire, etc. No open areas of work shall be left open during non-working hours or inclement weather. Contractor is responsible for all damages caused due to this contract, to all materials, whether existing or incorporated into this work.

B. Storage - Each Contractor shall erect a materials storage shed, properly covered, locked, etc., as required. Contractor is responsible for stored materials. Stolen, damaged or destroyed materials shall be replaced at the Contractor's expense. No inside of building storage of materials is allowed before the date noted herein as start of physical work. No inside storage is allowed after construction starts unless it is in the area of work governed by this contract and is under the Contractor's full control and contract limits.

C. Field Office - None Required

D. Toilet Facilities - Workmen will be allowed to use existing facilities. Contractor shall be responsible for maintaining and keeping areas clean.

E. Miscellaneous - Contractor shall provide all temporary drainage, drains, sumps, walkways, railings, etc., as required for proper execution of work and as required to meet all codes and ordinances.

F. Debris Removal - All debris resulting from this work shall be cleaned up at end of each day’s work and hauled away from job upon completion to a licensed disposal site. Prime Contractor shall provide a dumpster as required for use by all Sub-Contractors and pay for all usage/dump charges.

G. Removal - Temporary facilities shall be removed when no longer required, or at completion and site restored to original condition.

H. Exits - Provide temporary ladders, railings, etc., as required for emergency use during construction. Proper exiting of building shall be maintained at all times.

I. Temporary Heat - Contractor shall provide and maintain all temporary heating and ventilating units during construction as required to properly execute this contract. All fuels used shall be paid for by the Contractor. (No electric units)

J. Barricades - Provide all necessary barricades, fencing, flagmen, etc., to properly control and assure the safety of workers and the public during this work.

K. Water - The Prime Contractor shall make suitable connections as required to perform the work. Water to be available at site as provided by the Owner.

L. Electrical - The Contractor shall make suitable connections as required to perform the work. Electricity will be available on the site as furnished and paid for by the Owner. See Electrical Division for other requirements.

M. Telephones - Contractor can use on-site pay telephones if available. Contractor is not to use Owner's general telephones.

N. Fencing - Prime Contractor is to secure the contract limits of this work with snow type fencing or better as needed to secure the construction site off limits to unauthorized people. Safety to staff, students and public is of utmost importance. All ladders, scaffolding, doors, windows, entries, and other attractive/inviting items, shall be secured during non-working hours.

O. Temporary Fire Barriers - In student occupied buildings, temporary fire rated doors/barriers are to be installed when the students are scheduled to occupy the building and construction is not complete.

P. Road Maintenance - Contractor shall keep the Owner's roads free of construction spillages and debris at all times. Repair damage caused to these roads by contract-related construction vehicles by replacing damaged pavement and curbing to match existing construction.

Construct and maintain temporary earth ramps for access and egress of heavy construction and delivery vehicles to below grade (excavated) areas of the construction site.

Q. Parking - Contractor may use designated areas of Owner's parking facilities for passenger vehicles only. Heavy construction equipment will not be permitted on Owner's parking facilities. Maintain and repair any damage caused by use of Owner's parking facilities. Maintain parking area for construction vehicles as designated by the Owner.

1.15 OWNER'S WORK & SCHEDULES:

A. Owner shall be responsible for removing his equipment and materials from the contract area in sufficient time before the Contractor's work is to begin.

B. Contractor shall assume that the site and building will be occupied by staff/students during the time of construction. Precautions concerning the safety of occupants shall be exercised at all times.

C. The Owner reserves the right to award contracts for the work on the same project, or perform work with own personnel. Complete cooperation shall exist between all parties.

D. Unavoidable shutdowns for purposes of extension of existing utilities (water, electric, etc.), or installation of temporary or permanent work shall be scheduled 48 hours in advance and at the convenience of the Owner during off-use hours.

E. The Owner reserves the right to make emergency repairs, as required to keep equipment in operation without voiding the Contractor's guarantee bond, nor relieving the Contractor of his responsibilities during the bonding period.

F. Since students and staff will be occupying the site and building, specific areas for Contractor parking, storage, building access, etc., must be coordinated with Owner. Contractor shall install snow type fences to secure these and construction areas.

G. Hours of work by this Contractor/Sub-Contractor(s) shall occur between 7:30 A.M. to 4:00 P.M., Monday through Friday. The Owner will be responsible to have the building and site open and closed at times so noted.

H. Should the Contractor desire times other than those listed above for interior work, the Contractor shall submit a written request to the Owner for consideration and approval forty-eight (48) hours in advance, in order to change the scheduling of their custodial staff and the opening/closing of the building(s)/sites(s). Should this special request be granted by the Owner, the Contractor shall accept and pay the additional costs incurred by the Owner at the rate of $60 per opening and $60 per closing of the building/site. This cost will be treated as a Change Order and deducted from the contract cost.

1.16 MISCELLANEOUS COSTS:

A. The Prime Contractor shall secure and pay for the building permit from the Governing Building Authority, based on the work of all Contractors, along with all costs for inspections, plan review fees, approvals, etc. Sub-contractors shall secure same related permits as required by code. Upon completion, submit all occupancy permits, approvals, etc. It is the Prime Contractor's responsibility to pick up all costs and coordinate the Sub-permits, should the Sub-Contractors under his control fail to do so. All permits, including electrical/mechanical, shall be secured from the State of Michigan. Contact the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes and Fire Safety, Plan Review Division, P.O. Box 30255, Lansing, MI 48909 (517-241-9328).

B. The Prime Contractor shall retain the services of an Approved Third-Party Agency to perform all Special Inspections and Testing as required by the Governing Building Code, Governing Building Authority, or as called out in the construction documents. Notify Owner / Architect, immediately, of any failed tests or inspections and provide Owner with all written reports and test results at project completion. See “Special Inspections” in the Governing Building Code for requirements.

C. Contractor, Sub-Contractor and Supplier shall include in his bid and contract price any Michigan sales and use taxes, currently imposed by legislative enactment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Carpenters			**11/01/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$74.81	$96.28	$117.75
Apprentice: Level 1 1st year	$48.91	$61.89	$74.87
Apprentice: Level 2 2nd Year	$55.39	$70.50	$85.60
Apprentice: Level 3 3rd Year	$61.86	$79.09	$96.31
Apprentice: Level 4 4th Year	$68.34	$87.69	$107.04

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Electrician			**10/31/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$76.68	$115.03	$153.36
Apprentice: Apprentice Level 1 & 2	$36.86	$55.30	$73.72
Apprentice: Apprentice Level 3	$45.50	$68.26	$91.00
Apprentice: Apprentice Level 4	$51.73	$77.60	$103.46
Apprentice: Apprentice Level 5	$57.98	$86.96	$115.96
Apprentice: Apprentice Level 6	$64.19	$96.29	$128.38

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Laborer, Common - Commercial			**11/04/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$54.58	$71.50	$88.41
Apprentice: Apprentice Level 1	$46.12	$58.81	$71.49
Apprentice: Apprentice Level 2	$47.81	$61.34	$74.87
Apprentice: Apprentice Level 3	$49.51	$63.89	$78.27
Apprentice: Apprentice Level 4	$52.89	$68.96	$85.03

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name	Last Updated
Laborer, Skilled - Commercial	**11/04/2025**

Wage Rates	Straight Time	Time and a Half	Double Time
Journeyman	$54.58	$71.50	$88.41
Apprentice: Apprentice Level 1	$46.12	$58.81	$71.49
Apprentice: Apprentice Level 2	$47.81	$61.34	$74.87
Apprentice: Apprentice Level 3	$49.51	$63.89	$78.27
Apprentice: Apprentice Level 4	$52.89	$68.96	$85.03

Four 10-hour days allowed? - No

Make Up Day Allowed? - No

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Low Voltage Technician			**01/20/2026**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$53.28	$79.93	$106.56
Apprentice: Level 1	$25.14	$37.71	$50.28
Apprentice: Level 2	$29.17	$43.76	$58.34
Apprentice: Level 3	$44.33	$66.51	$88.66
Apprentice: Level 4	$46.11	$69.17	$92.22
Apprentice: Level 5	$47.89	$71.84	$95.78
Apprentice: Level 6	$49.67	$74.51	$99.34

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Millwright			**11/05/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$82.65	$126.09	$165.30
Apprentice: Level 1	$60.79	$91.21	$121.58
Apprentice: Level 2	$68.09	$102.15	$136.18
Apprentice: Level 3	$75.36	$113.05	$150.72
Apprentice: Level 4	$79.01	$118.54	$158.02

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Painters			**02/05/2026**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$57.02	$73.38	$90.53
Apprentice: Level 1	$43.30	$52.80	$63.09
Apprentice: Level 2	$46.73	$58.74	$70.75
Apprentice: Level 3	$50.16	$63.89	$77.61
Apprentice: Level 4	$53.59	$69.03	$84.47

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Pipefitters—Steamfitters			**11/03/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$72.30	$108.46	$144.60
Apprentice: Level 1	$46.55	$69.83	$93.10
Apprentice: Level 2	$51.22	$76.84	$102.44
Apprentice: Level 3	$55.89	$83.84	$111.78
Apprentice: Level 4	$60.56	$90.85	$121.12
Apprentice: Level 5	$65.23	$97.85	$130.46

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Plumbers			**10/29/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$72.30	$108.46	$144.60
Apprentice: Level 1	$46.55	$69.83	$93.10
Apprentice: Level 2	$51.22	$76.84	$102.44
Apprentice: Level 3	$55.89	$83.84	$111.78
Apprentice: Level 4	$60.56	$90.85	$121.12
Apprentice: Level 5	$65.23	$97.85	$130.46

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name	Last Updated
Roofer/Waterproofer	**11/03/2025**

Wage Rates	Straight Time	Time and a Half	Double Time
Journeyman	$36.79	$48.98	$61.16
Apprentice: 1st period	$24.61	$30.70	$36.80
Apprentice: 2nd period	$25.82	$32.52	$39.22
Apprentice: 3rd period	$27.04	$34.35	$41.66
Apprentice: 4th period	$28.26	$36.18	$44.10
Apprentice: 5th period	$29.48	$38.01	$46.54
Apprentice: 6th period	$30.70	$39.84	$48.98
Apprentice: 7th period	$31.92	$41.67	$51.42
Apprentice: 8th period	$33.13	$43.48	$53.84

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

Prevailing Wage Rates for State Of Michigan Funded Projects

Official Rate Schedule

Monroe

Classification Name			Last Updated
Sheet Metal Workers			**11/03/2025**
Wage Rates	**Straight Time**	**Time and a Half**	**Double Time**
Journeyman	$67.92	$91.48	$115.03
Apprentice: 1st Year	$31.17	$41.07	$50.97
Apprentice: 2nd Year	$44.37	$56.16	$67.93
Apprentice: 3rd Year	$46.57	$59.45	$72.33
Apprentice: 4th Year	$48.77	$62.75	$76.73
Apprentice: 5th Year	$55.38	$72.67	$89.95

Four 10-hour days allowed? - Yes

Make Up Day Allowed? - Yes

4 ten hour days allowed when scheduled as four consecutive days, Monday thru Friday

* SAMPLE *

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): DATE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Agent: Name Address Phone Number Contact Person	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: List Company for each Coverage	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

INSURED
Contractor: Name Address Phone Number Contact Person

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC			List #	List Dates →		EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS HIRED AUTOS ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS			List #	→		COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N ☐ N/A If yes, describe under DESCRIPTION OF OPERATIONS below			List #	→		WC STATU-TORY LIMITS ☐ OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
	Installation Floater Business Risk			List #	→		Site Amt — Stored Transit — or install Total	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Owner + Architect as additional insured with respect to general liability.

→ List actual names (add any attachments)

CERTIFICATE HOLDER

Owner: Name
Mailing Address

NOT Job or Architect

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Signature of Agent

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* SAMPLE *

SECTION 012500
SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Procedural requirements for proposed substitutions.

1.02 DEFINITIONS

A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.

The proposal shall be based ONLY upon the furnishing of all materials and/or equipment and accessories as specified by manufacturer or trade names throughout the various specification headings. Where the phrase "approved substitute" and/or "approved equal" appears, the Contractor may, if he desires, request approval from the Owner and Architect. The acceptance of such substitutes, which the Architect and Owner believe to be in the Owner's best interests, will be made prior to bid opening. If no such substitutions are accepted at that time, the Contractor shall furnish only those materials and/or equipment specifically named. Contractor shall submit all pertinent data, manufacturer's specifications, picture cuts, etc., as required by the Architect/Owner for proper evaluation.

1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
   a. Unavailability.
   b. Regulatory changes.
2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
   a. Substitution requests offering advantages solely to the Contractor will not be considered.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
   2. Agrees to provide the same warranty for the substitution as for the specified product.
   3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
   4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
   5. Waives claims for additional costs or time extension that may subsequently become apparent.
   6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.

B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
   1. Note explicitly any non-compliant characteristics.

C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
   1. No specific form is required. Contractor's Substitution Request documentation must include the following:
      a. Project Information:

1) Official project name and number, and any additional required identifiers established in Contract Documents.
2) Owner's, Architect's, and Contractor's names.

b. Substitution Request Information:
1) Indication of whether the substitution is for cause or convenience.
2) Issue date.
3) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
4) Description of Substitution.
5) Reason why the specified item cannot be provided.
6) Differences between proposed substitution and specified item.
7) Description of how proposed substitution affects other parts of work.

c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
1) Physical characteristics.
2) In-service performance.
3) Expected durability.
4) Visual effect.
5) Warranties.
6) Other salient features and requirements.
7) Include, as appropriate or requested, the following types of documentation:
(a) Product Data:
(b) Samples.
(c) Certificates, test, reports or similar qualification data.
(d) Drawings, when required to show impact on adjacent construction elements.

d. Impact of Substitution:
1) Savings to Owner for accepting substitution.
2) Change to Contract Time due to accepting substitution.

D. Limit each request to a single proposed substitution item.
1. Submit an electronic document, combining the request form with supporting data into single document.

3.02 SUBSTITUTION PROCEDURES DURING PROCUREMENT

A. Submittal Time Restrictions:
1. Owner will consider requests for substitutions only if submitted at least 10 days prior to the date for receipt of bids.

3.03 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

A. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.

B. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
3. Bear the costs engendered by proposed substitution of:
a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.
b. Other construction by Owner.

c. Other unanticipated project considerations.

C. Substitutions will not be considered under one or more of the following circumstances:
1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
2. Without a separate written request.
3. When acceptance will require revisions to Contract Documents.

3.04 RESOLUTION

A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.

B. Architect will notify Contractor in writing of decision to accept or reject request.
1. Architect's decision following review of proposed substitution will be noted on the submitted form.

3.05 ACCEPTANCE

A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

END OF SECTION

SECTION 013000
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General administrative requirements.

B. Electronic document submittal.

C. Preconstruction meeting.

D. Progress meetings.

E. Construction progress schedule.

F. Contractor's daily reports.

G. Progress photographs.

H. Requests for Interpretation (RFI) procedures.

I. Submittal procedures.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements: General product requirements.

1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ELECTRONIC DOCUMENT SUBMITTAL

A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF, MS Word, or MS Excel) format, as appropriate to the document, and transmitted via email.
   1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Interpretation (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
   2. It is Contractor's responsibility to submit documents in allowable format.
   3. Contractor, Subcontractors, Suppliers, Owner, Architect, Architect's consultants, and any others who are part of the Electronic Document Submittal process are to follow this process.
   4. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com).
   5. Paper document transmittals will not be reviewed.
   6. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.

B. Cost: Any cost for this submital process is to be covered by each user.

3.02 PRECONSTRUCTION MEETING

A. Architect will schedule a meeting after Notice of Award to review all schedules, purchase orders, and details of the work. This must be done before any physical work begins - estimated time is 2-3 weeks after contract award. Invited to attend are the Prime Contractors, Owner's Representatives and the Architect/Engineer. Also, the Contractor shall have present, his

Foreman, or Superintendent who will be in charge of the job and any Sub-Contractors that are deemed major contributions to the work.

B. Agenda:
   1. Execution of Owner-Contractor Agreement.
   2. Submission of executed bonds and insurance certificates.
   3. Distribution of Contract Documents.
   4. Designation of personnel representing the parties to Contract.
   5. Contractor to have the following information for distribution at this meeting:
      a. Progress Schedule - Weekly bar graph of the anticipated progress of work.
      b. List of all Suppliers, Sub-Contractors, with phone numbers and addresses.
      c. Schedule of Payment Values
      d. List of all shop drawings to be submitted. Include spec data sheets, color samples, picture cuts, samples, etc. (See Shop Drawing Schedule at end of Instructions to Bidders.)
      e. Copies of purchase orders and written confirmation from Supplier/Sub-Contractor.
      f. Permit applications, or copies of permits, or submit a written letter to the Architect with date, inspector's name and phone number from the Governing Building Authority stating that permits will not be required.
   6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.

C. Architect will record minutes and distribute copies within two days after meeting to participants, Contractor, Owner, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the work at maximum weekly intervals.

B. Attendance Required:
   1. Contractor.
   2. Owner.
   3. Architect.
   4. Contractor's superintendent.
   5. Major subcontractors.

C. Agenda:
   1. Review minutes of previous meetings.
   2. Review of work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Review of RFIs log and status of responses.
   7. Review of off-site fabrication and delivery schedules.
   8. Maintenance of progress schedule.
   9. Corrective measures to regain projected schedules.
   10. Planned progress during succeeding work period.
   11. Maintenance of quality and work standards.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Other business relating to work.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.

B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.

C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
   1. Include written certification that major contractors have reviewed and accepted proposed schedule.

D. Within 10 days after joint review, submit complete schedule.

E. Submit updated schedule with each Application for Payment.

3.05 DAILY CONSTRUCTION REPORTS

A. Include only factual information. Do not include personal remarks or opinions regarding operations and/or personnel.

B. In addition to transmitting electronically at daily interval to Owner and Architect, submit electronically with pay app at monthly intervals.
   1. Field reports may be handwritten, scanned, and sent in .pdf format; or from electronic project management software (i.e. Raken, FieldLens, or others).

C. Prepare a daily construction report recording the following information concerning events at Project site and project progress:
   1. Date.
   2. High and low temperatures, and general weather conditions.
   3. List of subcontractors at Project site.
   4. List of separate contractors at Project site.
   5. Approximate count of personnel at Project site.
      a. Include a breakdown for supervisors, laborers, journeymen, equipment operators, and helpers.
   6. Material deliveries.
   7. Safety, environmental, or industrial relations incidents.
   8. Meetings and significant decisions.
   9. Stoppages, delays, shortages, and losses. Include comparison between scheduled work activities (in Contractor's most recently updated and published schedule) and actual activities. Explain differences, if any. Note days or periods when no work was in progress and explain the reasons why.
   10. Directives and requests of Authority(s) Having Jurisdiction (AHJ).
   11. Testing and/or inspections performed.
   12. List of verbal instruction given by Owner and/or Architect.
   13. Signature of Contractor's authorized representative.
   14. Progress Photographs

3.06 PROGRESS PHOTOGRAPHS

A. Maintain one set of all photographs at project site for reference; same copies as submitted, identified as such.

B. Photography Type: Digital; electronic files.

C. In addition to periodic, recurring views, take photographs of each of the following events:
   1. Completion of site clearing.
   2. Excavations in progress.
   3. Foundations in progress and upon completion.
   4. Structural framing in progress and upon completion.
   5. Enclosure of building, upon completion.
   6. Final completion, minimum of ten (10) photos.

D. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
   1. Delivery Medium: Via email.
   2. File Naming: Include project identification, date and time of view, and view identification.

3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
4. Photo CD(s): Provide 1 copy including all photos cumulative to date and PDF file(s), with files organized in separate folders by submittal date.

3.07 REQUESTS FOR INTERPRETATION (RFI)

A. Definition: A request seeking one of the following:
   1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
   2. A resolution to an issue which has arisen due to field conditions and affects design intent.

B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.

C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
   1. Prepare a separate RFI for each specific item.
   2. Combine RFI and its attachments into a single electronic file. PDF format is preferred.

D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
   1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
   2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
      a. Approval of submittals (use procedures specified elsewhere in this section).
      b. Approval of substitutions (see Section - 016000 - Product Requirements)
      c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
      d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
   3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
   4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
      a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.

E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
   1. Official Project name and number, and any additional required identifiers established in Contract Documents.
   2. Owner's, Architect's, and Contractor's names.
   3. Discrete and consecutive RFI number, and descriptive subject/title.
   4. Issue date, and requested reply date.
   5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
   6. Annotations: Field dimensions and/or description of conditions which have engendered the request.

7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.

F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.

G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
1. Indicate current status of every RFI. Update log promptly and on a regular basis.
2. Note dates of when each request is made, and when a response is received.
3. Highlight items requiring priority or expedited response.
4. Highlight items for which a timely response has not been received to date.

H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.

I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.08 SUBMITTAL SCHEDULE

A. Submit to Architect for review a schedule for submittals in tabular format.
1. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
2. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.09 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
1. Project record documents.
2. Operation and maintenance data.
3. Warranties.
4. Bonds.

5. Other types as indicated.

D. Submit for Owner's benefit during and after project completion.

3.10 PAY REQUEST SUBMITALS

A. Contractor shall file electronic (.pdf) applications for monthly payment installments with the Architect in accordance with the requirements of the General Conditions if a 100% Performance/Labor and Material Bond is a part of this contract. Otherwise no payment shall be made until completion of the work.

B. Submitted with the first application for payment, the Contractor shall file with the Architect, for his approval, a schedule of values for the various parts of the work aggregating the contract sum. Schedule shall be in such form and in sufficient detail to facilitate issuance of certificates of payment. Schedule shall become the basis for payments and shall accompany all remaining applications for payments.

C. Pay Request Submittals - Must be submitted to the Architect (1) week before it goes to Owner. Owner needs (20) days for processing and issuing check. Note any special dates that request for payments must be received by Owner. Otherwise dates will be established at the pre-construction meeting.
   1. AIA Form G-702, signed and notarized.
   2. AIA Form G-703, complete with line item breakdowns for General Conditions, Architectural Trades, Mechanical, Electrical, etc.
   3. Waiver of Lien from Contractor, each Sub-Contractor, each Major Material Supplier for preceding pay request.
   4. Contractors Sworn statement. (See sample Statement at the end of this section. This sample statement is available from architect in electronic format. Any other Sworn statement form shall include, at least, the column information shown on sample.)
   5. Labor/Payroll Forms from Contractor and each Sub-Contractor listing each Worker’s name, address, social security number, trade classification, rate of pay, hours and week worked. HUD Form WH 347, or Certified Payroll Form is acceptable. Must be signed. This is applicable only if a State Prevailing Wage or Federal Wage Rate Project.
   6. Daily Field Reports since previous pay application.
   7. Progress Photographs since previous pay application.

D. Final Pay Request shall include the above items, plus the following items:
   1. Final Waivers of Lien from Contractor, all Sub-Contractors, all Major Material Suppliers
   2. Contractor's Affidavit of Payment of Debts and Claims, AIA Form G706
   3. Consent of Surety Company to Final Payment, AIA Form G707
   4. Contractor's written Warranty per 007400 - Supplementary and Special Conditions from the date of Final Payment.
   5. All written Warranties per Section 007400 - Supplementary and Special Conditions of Specifications from Manufacturer's Components/Systems, as noted in other Divisions of these Specifications.
   6. "As-Built" Drawings, showing any changes from bidding drawings. Including “site survey” verifying all grades, dimensioning locations of all U.G. valves, clean-outs, taps, etc. per requirements listed elsewhere.
   7. Final Approval Certificates from the Governing Building Officials on all Construction Permits obtained, and/or required.
   8. Copies of all Maintenance Manuals/Procedures from the Manufacturers of all Pre-Manufactured Components/Systems, plus (1) complete set of all Shop Drawings for project.
   9. List containing all Sub-Contractors, their Suppliers and related products with names, address, contact person and phone numbers.

3.11 WORKER'S QUALIFICATION SUBMITTALS

A. Must be submitted electronicaly within two (2) weeks after receiving notice to proceed. This includes Prime Contractor and all major Sub-Contractors.

1. List with each worker's name, address, social security number, trade classification, years of trade experience and years employed by Contractor. See other Divisions of these specifications that may set ratios of apprentices to journeymen.
2. Conviction Disclosure Form, (copy attached at the end of this Division) and a copy of their driver’s license or legal photo I.D. for each worker on the construction site with the name and signature of each worker.

3.12 SUBMITTAL REVIEW

A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.

B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.

C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
   1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.

END OF SECTION

Name of Project _____ Date: _____
Project Address _____
Client _____
Client Address _____
Arch. Project # _____

SWORN STATEMENT

STATE OF MICHIGAN) SS:
COUNTY OF _____)

_____, *[name of person swearing statement]*, being duly sworn, states the following:

_____ *[name of contractor]* is the contractor for an improvement to the following real property in _____ County, Michigan, described as follows: *[Give the legal description of the property.]*

The following is a statement of each subcontractor, supplier and laborer for whom payment of wages or fringe benefits and withholdings is due but unpaid with whom the contractor has contracted for performance under the contract with the owner or lessee, and the amounts due to the persons as of the date of this statement are correctly and fully set forth opposite their names:

Name, Address & Phone No. of Subcontractor, Supplier or Laborer	Type of Improvement Furnished	Total Contract Price	Change Orders	Adjusted Contract Price	Subcontractor Paid to Date	Current Request	Retainage	Balance to Complete
TOTALS:								

[NOTE: It is not necessary to list any materials furnished by the contractor / subcontractor out of his/her own inventory, and which have not been purchased specifically for performing the contract.]

The contractor has not procured materials from, or subcontracted with, any person other than those set forth above, and owes no money for the improvement other than the sums set forth above.

I make this statement as the contractor or as _____ *[capacity]* of the contractor to represent to the owner or lessee of the property and his/her agents that the property is free from claims of construction liens, or the possibility of construction liens, except as specifically set forth in this statement and except for claims of construction liens by laborers that may be provided under Section 109 of the Construction Lien Act, 1980 PA 497, MCL 570.1109.

SWORN STATEMENT

WARNING TO OWNER OR LESSEE: AN OWNER OR LESSEE OF THE PROPERTY MAY NOT RELY ON THIS SWORN STATEMENT TO AVOID THE CLAIM OF A SUBCONTRACTOR, SUPPLIER OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR A LABORER WHO MAY PROVIDE A NOTICE OF FURNISHING UNDER SECTION 109 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1109 TO THE DESIGNEE OR TO THE OWNER OR LESSEE IF THE DESIGNEE IS NOT NAMED OR HAS DIED.

IF THIS SWORN STATEMENT IS IN REGARD TO A RESIDENTIAL STRUCTURE, ON RECEIPT OF THIS SWORN STATEMENT, THE OWNER OR LESSEE, OR THE OWNER'S OR LESSEE'S DESIGNEE MUST GIVE NOTICE OF ITS RECEIPT, EITHER IN WRITING, OR BY TELEPHONE, OR PERSONALLY, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING UNDER SECTION 109 OR, IF A NOTICE OF FURNISHING IS EXCUSED UNDER SECTION 108 OR 108A, TO EACH SUBCONTRACTOR, SUPPLIER, AND LABORER NAMED IN THE SWORN STATEMENT. IF A SUBCONTRACTOR, SUPPLIER, OR LABORER WHO HAS PROVIDED A NOTICE OF FURNISHING OR WHO IS NAMED IN THE SWORN STATEMENT MAKES A REQUEST, THE OWNER, LESSEE, OR DESIGNEE SHALL PROVIDE THE REQUESTER A COPY OF THE SWORN STATEMENT WITHIN 10 BUSINESS DAYS AFTER RECEIVING THE REQUEST.

_____ _____
Signature of Deponent Print Name

WARNING TO DEPONENT: A PERSON WHO GIVES A FALSE SWORN STATEMENT WITH INTENT TO DEFRAUD IS SUBJECT TO CRIMINAL PENALTIES AS PROVIDED IN SECTION 110 OF THE CONSTRUCTION LIEN ACT, 1980 PA 497, MCL 570.1110.

Subscribed and sworn to before me this _____ day of _____, 20_____.

_____
Notary Public, _____ County, _____State
Print Name: _____
My Commission Expires: _____

SWORN STATEMENT

570.1110 Sworn statement by contractor or subcontractor; contents; form; notice of receipt; withholding from contractor or subcontractor amount due subcontractors, suppliers, laborers, or lien claimants; direct payments to lien claimants; notice; itemized statement; reliance on sworn statement to avoid claim; failure of contractor or subcontractor to provide sworn statement to owner or lessee prior to recording claim of lien; giving false sworn statement to owner or lessee as crime; total amount; prior convictions; prohibited use.

Sec. 110.

(1) A contractor shall provide a sworn statement to the owner or lessee in each of the following circumstances:

(a) When payment is due to the contractor from the owner or lessee or when the contractor requests payment from the owner or lessee.

(b) When a demand for the sworn statement has been made by or on behalf of the owner or lessee.

(2) A subcontractor shall provide a sworn statement to the owner or lessee when a demand for the sworn statement has been made by or on behalf of the owner or lessee and, if applicable, the owner or lessee has complied with the requirements of subsection (6).

(3) A subcontractor shall provide a sworn statement to the contractor when payment is due to the subcontractor from the contractor or when the subcontractor requests payment from the contractor.

(4) A sworn statement shall list each subcontractor and supplier with whom the person issuing the sworn statement has contracted relative to the improvement to the real property. The sworn statement shall contain a list of laborers with whom the person issuing the sworn statement has contracted relative to the improvement to the real property and for whom payment for wages or fringe benefits and withholdings are due but unpaid and the itemized amount of such wages or fringe benefits and withholdings.

(5) The contractor or subcontractor is not required to list in the sworn statement material furnished by the contractor or subcontractor out of his or her own inventory that was not purchased specifically for performing the contract.

(6) On receipt of a sworn statement regarding an improvement to a residential structure, the owner, lessee, or designee shall give notice of its receipt, either in writing, by telephone, or personally, to each subcontractor, supplier, and laborer who has provided a notice of furnishing under section 109 or, if a notice of furnishing is excused under section 108 or 108a, to each subcontractor, supplier, and laborer named in the sworn statement. If a subcontractor, supplier, or laborer entitled to notice under this subsection requests a copy of the sworn statement, the owner, lessee, or designee shall provide the requester a copy within 10 business days after receiving the request.

(7) After the contractor or subcontractor provides the sworn statement, the owner or lessee may withhold or, upon written demand from the contractor, shall withhold from the amount due or to become due to the contractor or to the subcontractor for work already performed an amount sufficient to pay all sums due to subcontractors, suppliers, or laborers, as shown by the sworn statement, or due to lien claimants who have provided a notice of furnishing under section 109. From the amount withheld, the owner or lessee may directly pay subcontractors, suppliers, or laborers the amount they are due as shown by the sworn statement. If the contract provides for payments by the owner to the general contractor in the normal course of construction, but the owner elects to pay lien claimants directly under this section, the first time the owner elects to make payment directly to a lien claimant, he or she shall provide at least 5 business days' notice to the general contractor of the intention to make direct payment. Subsequent direct disbursements to lien claimants need not be preceded by the 5-day notice provided in this section unless the owner first returns to the practice of paying all sums to the general contractor. As between the owner or lessee and the contractor or subcontractor, all payments made under this subsection are considered the same as if paid directly to the contractor or subcontractor. If an amount is withheld under this subsection from the contractor or subcontractor, the owner or lessee, upon request, shall prepare and provide to the contractor or subcontractor an itemized statement of the sums withheld. If an amount is paid directly to a lien claimant under this section, the owner or lessee shall, if requested by the contractor or subcontractor, provide to the contractor or subcontractor an itemized statement of the sums paid.

(8) An owner, lessee, designee, mortgagee, or contractor may rely on a sworn statement prepared by a party other than himself or herself to avoid the claim of a subcontractor, supplier, or laborer unless the subcontractor, supplier, or laborer has provided a notice of furnishing as required under section 109 or unless the notice of furnishing is excused under section 108 or 108a.

(9) If a contractor fails to provide a sworn statement to the owner or lessee before recording the contractor's claim of lien, the contractor's construction lien is not invalid. However, the contractor is not entitled to any payment, and a complaint, cross-claim, or counterclaim may not be filed to enforce the construction lien, until the sworn statement has been provided.

Name of Project _____ Date: _____
Project Address _____
Client _____
Client Address _____
Arch. Project # _____

SWORN STATEMENT

(10) If a subcontractor fails to provide a sworn statement under subsection (2) to the owner or lessee before recording the subcontractor's claim of lien, the subcontractor's construction lien is valid. However, a complaint, cross-claim, or counterclaim may not be filed to enforce the construction lien until the sworn statement has been provided.

(11) A contractor or subcontractor who desires to draw money and gives or causes to be given to any owner or lessee a sworn statement required by this section that is false, with intent to defraud, is guilty of a crime as follows:

a) If the statement involved is for less than $200.00, the contractor or subcontractor is guilty of a misdemeanor punishable by imprisonment for not more than 93 days or a fine of not more than $500.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine.

(b) If any of the following apply, the contractor or subcontractor is guilty of a misdemeanor punishable by imprisonment for not more than 1 year or a fine of not more than $2,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for $200.00 or more but less than $1,000.00.

(ii) The statement involved is for less than $200.00 and the contractor or subcontractor has 1 or more prior convictions for committing or attempting to commit an offense under this act.

(c) If any of the following apply, the contractor or subcontractor is guilty of a felony punishable by imprisonment for not more than 5 years or a fine of not more than $10,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for $1,000.00 or more but less than $20,000.00.

(ii) The statement involved is for more than $200.00 but less than $1,000.00 and the contractor or subcontractor has 1 or more prior convictions for violating or attempting to violate this act. For purposes of this subparagraph, however, a prior conviction does not include a conviction for a violation or attempted violation described in subdivision (a) or (b)(ii).

(d) If any of the following apply, the contractor or subcontractor is guilty of a felony punishable by imprisonment for not more than 10 years or a fine of not more than $15,000.00 or 3 times the statement amount, whichever is greater, or both imprisonment and a fine:

(i) The statement involved is for $20,000.00 or more.

(ii) The statement involved is for $1,000.00 or more but less than $20,000.00 and the contractor or subcontractor has 2 or more prior convictions for committing or attempting to commit an offense under this act. For purposes of this subparagraph, however, a prior conviction does not include a conviction for a violation or attempted violation described in subdivision (a) or (b)(ii).

(12) For purposes of subsection (11), statements involved in separate incidents pursuant to a scheme or course of conduct within any 12-month period may be aggregated to determine the total amount involved in the statements.

(13) If the prosecuting attorney intends to seek an enhanced sentence for a violation under this section based upon the defendant having 1 or more prior convictions, the prosecuting attorney shall include in the complaint and information a statement listing the prior conviction or convictions. The existence of the defendant's prior conviction or convictions shall be determined by the court, without a jury, at sentencing or at a separate hearing for that purpose before sentencing. The existence of a prior conviction may be established by any evidence relevant for that purpose, including, but not limited to, 1 or more of the following:

(a) A copy of the judgment of conviction.

(b) A transcript of a prior trial, plea-taking, or sentencing.

(c) Information contained in a presentence report.

(d) The defendant's statement.

(14) If the sentence for a conviction under this section is enhanced by 1 or more convictions, those prior convictions shall not be used to further enhance the sentence for the conviction pursuant to section 10, 11, or 12 of chapter IX of the code of criminal procedure, 1927 PA 175, MCL 769.10, 769.11, and 769.12.

CONTRACTOR'S DAILY FIELD REPORT

DATE COPIED TO ARCHITECT _____

(INCLUDE ENTIRE ACTIVITIES PER DAY)

CONTRACTOR: _____ FIELD REPORT NUMBER: _____

PROJECT: _____ ARCHITECT'S PROJECT NUMBER _____

DATE:_____ TIME _____ TEMP RANGE: _____ WORK HOURS:____A.M. TO ____ P.M.

PERCENT COMPLETE:_____ CONFORMANCE WITH SCHEDULE (+,-) _____

CREW (LIST SUBS, NUMBER OF WORKERS & TRADE CLASSIFICATIONS)

MATERIAL DELIVERIES / REMOVALS:

SITE VISITORS:

HEAVY EQUIPMENT OR SPECIAL EQUPMENT USED:

WORK PERFORMED:

ITEMS TO VERIFY:

INFORMATION OR ACTION REQUIRED:

ATTACHMENTS:

REPORTED BY: _____ PAGE _____ OF _____ PAGES

SECTION 016000
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Re-use of existing products.

B. Transportation, handling, storage and protection.

C. Product option requirements.

D. Substitution limitations.

E. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

A. Section 012500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.

1.03 SUBMITTALS

A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
   1. Submit within 15 days after date of Agreement.
   2. For products specified only by reference standards, list applicable reference standards.

B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
   1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.

B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.

C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is required.
   1. See Section 011000 for list of items required to be salvaged for reuse and relocation.
   2. If reuse of other existing materials or equipment is desired, submit substitution request.

2.02 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by Contract Documents.

B. Use of products having any of the following characteristics is not permitted:
   1. Made using or containing CFC's or HCFC's.
   2. Containing lead, cadmium, or asbestos.

2.03 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.

B. Furnish min. 5% replacement stock materials for all non-painted ceiling, flooring, and wall coverings installed as part of this work.

C. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

A. See Section 012500 - Substitution Procedures.

3.02 TRANSPORTATION AND HANDLING

A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.

B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

D. Transport and handle products in accordance with manufacturer's instructions.

E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 017419.

1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project floor and roof areas.

B. Store and protect products in accordance with manufacturers' instructions.

C. Store with seals and labels intact and legible.

D. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.

E. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.

F. For exterior storage of fabricated products, place on sloped supports above ground.

G. Provide off-site storage and protection when site does not permit on-site storage or protection.

H. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

I. Comply with manufacturer's warranty conditions, if any.

J. Do not store products directly on the ground.

K. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

L. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

M. Prevent contact with material that may cause corrosion, discoloration, or staining.

N. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

O. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 017000
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.

B. Requirements for alterations work, including selective demolition.

C. Pre-installation meetings.

D. Cutting and patching.

E. Surveying for laying out the work.

F. Cleaning and protection.

G. Storage of Materials

H. Starting of systems and equipment.

I. Demonstration and instruction of Owner personnel.

J. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.02 RELATED REQUIREMENTS

A. Section 015000 - Temporary Facilities and Controls: Temporary exterior enclosures.

B. Section 015000 - Temporary Facilities and Controls: Temporary interior partitions.

C. Section 078400 - Firestopping.

D. Individual Product Specification Sections:
   1. Advance notification to other sections of openings required in work of those sections.
   2. Limitations on cutting structural members.

1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2019.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
   1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Include design drawings and calculations for bracing and shoring.
   2. Identify demolition firm and submit qualifications.
   3. Include a summary of safety procedures.

C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   1. Structural integrity of any element of Project.
   2. Integrity of weather exposed or moisture resistant element.
   3. Efficiency, maintenance, or safety of any operational element.
   4. Visual qualities of sight exposed elements.
   5. Work of Owner or separate Contractor.

D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 QUALIFICATIONS

A. For demolition work, employ a firm specializing in the type of work required.
   1. Minimum of 5 years of documented experience.

B. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.06 PROJECT CONDITIONS

A. Use of explosives is not permitted.

B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

C. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

D. Perform dewatering activities, as required, for the duration of the project.

E. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

F. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

G. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

H. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

1.07 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Notify affected utility companies and comply with their requirements.

C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

F. Coordinate completion and clean-up of work of separate sections.

G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.

B. Require attendance of parties directly affecting, or affected by, work of the specific section.

C. Notify Architect four days in advance of meeting date.

D. Prepare agenda and preside at meeting:
   1. Review conditions of examination, preparation and installation procedures.
   2. Review coordination with related work.

E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.

B. Promptly notify Architect of any discrepancies discovered.

C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.

D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.

F. Utilize recognized engineering survey practices.

G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
   1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
   2. Grid or axis for structures.
   3. Building foundation, column locations, ground floor elevations.

H. Periodically verify layouts by same means.

I. Maintain a complete and accurate log of control and survey work as it progresses.

3.05 GENERAL INSTALLATION REQUIREMENTS

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.

B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
   1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 015000 in locations indicated on drawings.

C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
   1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
   2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.

D. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.
   2. Relocate items indicated on drawings.
   3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
   4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
   2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
   3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
      a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
      b. Provide temporary connections as required to maintain existing systems in service.
   4. Verify that abandoned services serve only abandoned facilities.
   5. Remove abandoned pipe, ducts, conduits, and equipment , including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub

and tag with identification; patch holes left by removal using materials specified for new construction.

F. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.

G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
   1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

I. Refinish existing surfaces as indicated:
   1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
   2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.

J. Clean existing systems and equipment.

K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

L. Do not begin new construction in alterations areas before demolition is complete.

M. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

A. The Prime Contractor shall be responsible for coordinating all cutting and patching of built work that needs to be modified for missed items, errors, defects, etc., as caused by his own Employees or Sub-contractors. He shall coordinate with related trades and Sub-Contractors and work out all details and scheduling. The Prime Contractor shall coordinate with the responsible party for the problem and extra work and shall resolve all costs to correct, without additional charge to the Owner.

B. Whenever possible, execute the work by methods that avoid cutting or patching.

C. See Alterations article above for additional requirements.

D. Perform whatever cutting and patching is necessary to:
   1. Complete the work.
   2. Fit products together to integrate with other work.
   3. Provide openings for penetration of mechanical, electrical, and other services.
   4. Match work that has been cut to adjacent work.
   5. Repair areas adjacent to cuts to required condition.
   6. Repair new work damaged by subsequent work.
   7. Remove samples of installed work for testing when requested.
   8. Remove and replace defective and non-complying work.

E. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

F. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

G. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

H. Restore work with new products in accordance with requirements of Contract Documents.

I. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

J. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.

K. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.08 PROGRESS CLEANING

A. On a daily basis, all rubbish and debris shall be cleaned up and placed in a dumpster on the job site to be removed/replaced as needed to a licensed disposal site. The building site shall be kept neat and organized, so that work and safety of all trades is not affected. Submit written documentation, manifests, logs, etc. of all debris removal at completion of job.

B. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

C. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

D. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

E. Collect and remove waste materials, debris, and trash/rubbish from site daily and dispose off-site; do not burn or bury.

F. It shall be the Prime Contractor's responsibility to clean-up and co-ordinate work areas so that each trade can perform their work safely and efficiently or direct and enforce that each Sub-Contractor conforms to these same requirements.

G. Should the Contractor fail to clean-up debris caused from his operations and properly store and remove from site on a daily basis, the Owner in a safety/emergency situation without notice to the Contractor may elect to clean up debris with their own work force. At other times the Owner will give Contractor advance notice. All costs incurred by the Owner due to Contractor's neglect will be documented and deducted against the final contract amount due to the Contractor.

3.09 STORAGE OF MATERIALS

A. Materials used as part of this work shall be neatly stored and properly protected in an organized manner, so they do not interfere with the work, safety of all trades and hazard or damage to the site/building. Vandalism arising from improperly stored materials to the Owner's site/building shall be borne by the Contractor.

3.10 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.11 SYSTEM STARTUP

A. Coordinate schedule for start-up of various equipment and systems.

B. Notify Architect and Owner seven days prior to start-up of each item.

C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.

D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

E. Verify that wiring and support components for equipment are complete and tested.

F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.

G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.

H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.12 DEMONSTRATION AND INSTRUCTION

A. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.

B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.

D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.13 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.14 FINAL CLEANING

A. Use cleaning materials that are nonhazardous.

B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

E. Clean filters of operating equipment.

F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.

G. Clean site; sweep paved areas, rake clean landscaped surfaces.

H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

I. If this contract involves construction of a new building, remodeling, or additions the scope of clean up shall be more than the normal removal of rubbish and leaving the work areas clean. The Contractor shall clean all new work, wash floors, vacuum carpet, wash glass, remove all stickers, replace broken glass, remove stains, spots, marks, dust and dirt from all decorated work and finishes, including all existing areas affected by this operation, including tenants furnishings, contents and personal belongings. All damage to lawns, walks, pavement, vehicles or other operations in performing this work shall be repaired or replaced to an equal, or better condition than before the damage occurred. The project shall be ready for Owner's occupancy and use when completed.

3.15 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
   1. Provide copies to Architect.

B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.

C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.

D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.

E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.

F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

END OF SECTION

SECTION 024100
DEMOLITION AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Selective demolition of built site elements for alteration purposes.

B. Selective demolition of building elements for alteration purposes.

C. Removal of interior concrete slab for sanitary work and electrical work.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.

B. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2019.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Site Plan: Indicate:
   1. Areas for temporary construction and field offices.
   2. Areas for temporary and permanent placement of removed materials.

C. Demolition Plan: Submit demolition plan as required by OSHA and local AHJs.
   1. Indicate extent of demolition, removal sequencing, bracing and shoring, and location and construction of barricades and fences.
   2. Demolition firm qualifications.

D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

1.05 QUALITY ASSURANCE

A. All demolition workmanship shall be of first quality, performed by skilled workers with items carefully removed to not damage existing work that remains or to be built upon/modified by other trades. The Demolition Contractor or workers shall be knowledgeable of the systems and materials they are removing. Coordinate all demolition work with the Sub-Contractors that will be required to repair, extend, modify, alter, etc., the item or items involved. Where possible, the actual trade performing the re-construction shall perform the demolition.

PART 3 EXECUTION

2.01 DEMOLITION

A. Work included consists of, but is not limited to the following:
   1. Selective removal of roofing, decking, structure, ceilings, walls, slabs, floor finishes, joints, masonry, misc. equipment, doors/frames, etc., as detailed or required for new work and/or maintenance repairs.
   2. See related mechanical, electrical, and plumbing specifications for other items.
   3. Where necessary or specified, saw cut, core drill, etc., certain areas to prevent un-necessary destruction of the existing work, which may otherwise require extra re-building to return to original or acceptable condition as existed before starting new work.
   4. Selective demolition of kitchen exhaust hood and related work.
   5. Miscellaneous finishes as required for new work.
   6. All other work as indicated on the drawings.

B. Remove other items indicated, for salvage, relocation, and recycling.
   1. Refer to Kitchen Equipment Plan and Schedule for equiment that is protected and stored until completion of work.

2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Comply with applicable requirements of NFPA 241.
   3. Use of explosives is not permitted.
   4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   5. Provide, erect, and maintain temporary barriers and security devices.
   6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
   7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   8. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
   9. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
   10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.

B. Do not begin removal until receipt of notification to proceed from Owner.

C. Do not begin removal until built elements to be salvaged or relocated have been removed.

D. Protect existing structures and other elements to remain in place and not removed.
   1. Design, install, and maintain formwork, falsework, shoring, reshoring, bracing and other temporary systems required to support construction loads and to maintain stability during construction. Engage the services of professional engineer licensed in state of project to design such temporary systems.
   2. When it is necessary to cut openings in existing concrete members, slabs, or masonry, locate existing prestressing tendons, reinforcing bars, and embedments, by x-ray, electromagnetic, or ultrasonic testing or by chipping. Do not cut or damage prestressing tendons and minimize cutting of other reinforcing bars and embedments. Notify Architect of existing reinforcing bars and embedments which will be cut by openings.
   3. Prevent movement or settlement of adjacent structures.
   4. Stop work immediately if adjacent structures appear to be in danger.
   5. It is the contractor’s responsibility to exercise proper care to protect all surroundings (air quality, furnishings, building, occupants, etc.) during all phases of construction. Certain areas with high replacement costs, containing occupants, still under warranty, and/or easily damaged should have added protection features. An example would be "flat" roofs and gymnasium floors and any walking surface to remain being covered using protective boards to prevent puncturing, denting, surface scratching, and wear. Prior to any physical work, the contractor must have a written plan for protection approved by the architect.

E. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

F. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

G. Perform demolition in a manner that maximizes salvage and recycling of materials.
   1. Dismantle existing construction and separate materials.

2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

2.03 SALVAGEABLE MATERIALS

A. Where noted in Special Conditions, or herein, or other related Divisions or in the drawings, including mechanical and electrical, carefully remove certain items and store on job site in mutually agreed upon areas for Owner to pick-up and remove.

B. Any salvageable items as requested to become the property of the Owner, and the Contractor feels the item will be destroyed in the removal process, or is not cost effective to carefully removed, shall be stated as such in the Bid Proposal. Also any item or items scheduled to be turned over to the Owner, which the Contractor feels has substantial salvageable value and wishes to retain, he may elect to submit a credit for Owner's consideration on the Bid Proposal.

C. Contractor shall verify and coordinate salvageable material selection with the Owner prior to removal from the job site.

D. Salvageable items to turn over to the owner incude but are not limited to:
1. Door hardware
2. Other items as noted on the plans. See Kitchen Equipment Plan.

2.04 EXISTING UTILITIES

A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.

B. Contractor to locate all private utilities within work limits before starting physical work.

C. Protect existing utilities to remain from damage.

D. Do not disrupt public utilities without permit from authority having jurisdiction.

E. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

F. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.

G. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

H. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

2.05 SELECTIVE DEMOLITION FOR ALTERATIONS

A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
1. Verify construction and utility arrangements are as indicated.
2. Report discrepancies to Architect before disturbing existing installation.
3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.

B. Separate areas in which demolition is being conducted from areas that remain occupied.
1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 015000 in locations indicated on drawings.

C. Maintain weatherproof exterior building enclosure, except for interruptions required for replacement or modifications; prevent water and humidity damage.

D. Remove existing work as indicated and required to accomplish new work.
1. Remove items indicated on drawings.

E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.

1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
3. Verify that abandoned services serve only abandoned facilities before removal.
4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.

F. Protect existing work to remain.
1. Prevent movement of structure. Provide shoring and bracing as required.
2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
3. Repair adjacent construction and finishes damaged during removal work.
4. Patch to match new work.

2.06 PATCHING

A. Where certain items are called for to be replaced, removed, repaired, altered, etc., and the work involves the removal/destruction of adjacent or related existing items, those damaged items shall be patched, repaired, replaced to their original or better condition as existed before the work is started. A typical example would be regarding new door/frame replacement in same wall. Included as part of the work is any wall damage caused by the removal of door/frame and the installation of the new - including finishes.

B. Where not shown on drawings, all patching, painting, etc. shall be done with similar materials or an approved substitute to the surrounding areas or as specified in other related Divisions and as recommended by manufacturer. If the Contractor is in question, consult the Architect prior to removal or replacement. All materials shall be carefully removed to avoid damage to other work not scheduled for demolition or for turning over to the Owner.

C. All patching work shall be uniform in appearance, flush, same texture, etc. with the adjacent existing work. In certain instances, to achieve this, additional adjacent work may be necessary to remove and replace. Typical examples would be:

D. Any patch painting shall be done in geometric configurations, stopping at logical break points, such as inside or outside corners, at change of materials, or as directed by Owner/Architect.

E. Neatly saw cut existing walls for installation of new shower panel frames. Grout all surrounding masonry solid in preparation of frame installation.

F. Where existing tile ceilings are removed during Owners asbestos abatement, and the work will be exposed, patching may be done with matching plaster of 5/8” drywall properly anchored, taped and spackled.

G. Where existing walls are removed and/or finishes are removed, the substrate material shall be cleaned, ground down, filled, leveled smooth, etc. and made ready for new finishes and/or materials as specified. Flatness tolerance shall be Class ‘A’ (1/8” deviation in 10’). Leveling shall be done with materials as manufactured by Ardex, Sika, Thoro, or equal.

2.07 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Leave site in clean condition, ready for subsequent work.

C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 054300
SLOTTED CHANNEL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Hanging support system for Kitchen Exhaust Hood. Provide a complete engineered Unistrut suspension system for the new kitchen hood, including channels, hanger rods, fittings, timber connections, lateral restraints, and installation hardware. Transfer loads through positive structural connections to the existing wood timber beam frame.

1.02 RELATED REQUIREMENTS

A. Kitchen Exhaust Hood - see mechanical drawings.

1.03 SUMMARY

A. Framing shall be a strut type metal framing system (Strut System)

B. Strut System shall be used:

C. Strut System and components must be supplied from a single approved manufacturer.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Structural calculations by a Registered Professional or Structural Engineer in the State of the Project's location for approval by the Professional of Record. Calculations may include, but are not limited to:
   1. Description of design criteria
   2. Stress and deflection analysis
   3. Selection of framing members, fittings, and accessories

C. Assembly drawings necessary to install the Strut System in compliance with the Contract Drawings.

D. Submit product data and sealed calculations with coordinated shop drawings showing hood weight, hanger locations and reactions, beam identification, channel sizes and spans, rod sizes and grades, bracing, and all connection details. Identify bolt diameters, quantities, hole sizes, spacing, edge and end distances, plate sizes, and installation requirements.

E. Comply with adopted building and mechanical codes, the referenced edition of ANSI/AWC NDS for timber design, and current manufacturer instructions. For Type I hoods, maintain the listing and applicable NFPA 96 requirements. Resolve conflicting requirements before fabrication. Obtain reviewed submittals before drilling timber or installing supports.

F. Pertinent manufacturers published data

1.05 QUALITY ASSURANCE

A. Manufacturer's qualifications:
   1. The manufacturer shall have at least 10 years experience in manufacturing Strut Systems.
   2. The manufacturer must certify in writing all components supplied have been produced in accordance with an established quality assurance program.

B. Work shall meet the requirements of the following standards:
   1. Federal, State and Local codes
   2. American Iron and Steel Institute (AISI) Specification for the Design of Cold
   3. Formed Steel Structural Members 2001 Edition
   4. American Society for Testing And Materials (ASTM)

1.06 DELIVERY, STORAGE, AND HANDLING

A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.

B. All material is to be delivered to the work site in original factory packaging to avoid damage to the finish.

C. Upon delivery to the work site, all components shall be protected from the elements by a shelter or other covering.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer shall warrant for 1 year from the shipment date that products will be free from defects in material or manufacture. In the event of any such defect in violation of the warranty, Manufacturer shall have the option to repair or replace any such defective product.

C. Installer shall warrant for 1 year from the date of completion of work that the work will be free of defects in installation. In the event of any such defect in violation of the warranty, Installer shall have the option to repair or replace any such defective product.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Strut System and components shall be Unistrut metal framing by Atkore.

2.02 MATERIALS

A. All channel members shall be fabricated conforming to one of the following ASTM specifications:
   1. Plain Carbon Steel: A 1011 SS Grade 33
   2. Pre-Galvanized Carbon Steel: A 653 Grade 33
   3. Unistrut Defender: A 1046 SS Grade 33
   4. Stainless Steel: A240 (Type 304)
   5. Aluminum: B 221 (Type 6063-T6)

B. All fittings shall be fabricated conforming to one of the following ASTM specifications:
   1. Carbon Steel: All carbon steel fittings shall be fabricated from steel that meets / exceeds the physical requirements of ASTM A1011 SS Grade and conforms to one of the following ASTM specifications:
      a. A 575
      b. A 576
      c. A 36
      d. A 635
      e. A 1059
      f. A 1046
   2. Stainless Steel:
      a. A 240 (Type 304 or Type 316)
      b. A 276 (Type 304 or Type 316)
   3. Aluminum
      a. B209 (Type 1100F or Type 5052-H32)
   4. Any substitutions of product or manufacturer must be approved in writing ten days prior to bid date by professional of record.

2.03 FINISHES

A. Provide pregalvanized steel channel complying with ASTM A653 for concealed dry interior locations, with compatible plated or galvanized fittings. Where exposed to moisture or cleaning chemicals, provide manufacturer-recommended corrosion-resistant materials and finishes. Select stainless steel where needed; verify capacities for the selected material.

B. Pre-Galvanized per ASTM A653
   1. Zinc coated by hot-dipped process prior to roll forming at the steel mill.
   2. Zinc coating thickness shall be G90 (0.75 mil = 0.45 oz. / sq. ft. surface area)

PART 3 EXECUTION

3.01 EXAMINATION

A. The installer shall inspect the work area prior to installation. If work area conditions are unsatisfactory, installation shall not proceed until satisfactory corrections are completed.

3.02 INSTALLATION

A. Installation shall be accomplished by a fully trained manufacturer authorized installer.

B. Set Strut System components into final position true to line, level and plumb, in accordance with approved drawings.

C. Anchor material firmly in place, and tighten all connections to their recommended torques.

D. After installation and hood startup, verify level, secure connections, required clearances, and absence of abnormal movement or deflection. Submit record support drawings, inspection findings, and manufacturer maintenance instructions.

3.03 CLEANUP

A. Upon completion of this section of work, remove all protective wraps and debris. Repair any damage due to installation of this section of work.

3.04 PROTECTION

A. During installation, it shall be the responsibility of the installer to protect this work from damage.

B. Upon completion of this scope of work, it shall become the responsibility of the general contractor to protect this work from damage during the remainder of construction on the project and until substantial completion.

END OF SECTION

SECTION 055000
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Shop fabricated steel items.

B. Any miscellaneous metals as required for installation of work by other trades. Included are clip angles, closure plates, door jamb channels, etc., in sizes and type as shown.etc.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.

B. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2021.

C. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020.

D. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 2004.

E. SSPC-SP 2 - Hand Tool Cleaning; 2024.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

A. Steel Sections: ASTM A36/A36M.

B. Mechanical Fasteners: Same material as or compatible with materials being fastened; type consistent with design and specified quality level.

C. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.

D. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

A. Fit and shop assemble items in largest practical sections, for delivery to site.

B. Fabricate items with joints tightly fitted and secured.

C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

D. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

A. Fabricate metal work with sharp lines, angles, true and plumb-weld all connections, not otherwise shown, and fill smooth for painting any exposed surfaces.

B. Door Frames for Wall Openings and _____: Channel sections; prime paint finish.

2.04 FINISHES - STEEL

A. Prime paint steel items.

B. Prepare surfaces to be primed in accordance with SSPC-SP2.

C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.

D. Prime Painting: One coat.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

A. Clean and strip primed steel items to bare metal where site welding is required.

B. Furnish setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 INSTALLATION

A. Installation of metal shall be compatible with the adjacent materials. Provide any necessary spacers, isolators, shims, anchors, etc.

B. Install items plumb and level, accurately fitted, free from distortion or defects.

C. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

D. Perform field welding in accordance with AWS D1.1/D1.1M.

E. Obtain approval prior to site cutting or making adjustments not scheduled.

F. All members shown or required to have anchors embedded in masonry or concrete (floor nosings, door jambs, cantilevered beams, etc.) shall be shop assembled and welded. Unless noted otherwise, minimum anchors shall be 1/2" diameter x 12" with hooked end at 2'-0" on center and back welded full circumference of anchor.

END OF SECTION

SECTION 055216
ROOFTOP GUARDRAIL SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Movable, non-penetrating pipe & component inward-leaning guardrails with ballasted guardrail bases.

1.02 REFERENCES

A. Definitions: Definitions in OSHA 29 CFR 1910 and 1926 including their subparts apply to this Section.
   1. Guardrail System: A barrier erected to prevent persons from falling to lower levels.
   2. Competent Person:
      a. As defined in 29 CFR 1910.140(b) as "a person who is capable of identifying existing and predictable hazards in any personal fall protection system or any component of it, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards."
   3. Qualified Person:
      a. As defined in 29 CFR 1910.140(b) as "a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project."

B. Reference Standards: Perform Work per standards specified and as follows unless modified by requirements in the Contract Documents.
   1. American National Standards Institute (ANSI)/The American Society of Safety Professionals (ASSP):
      a. ANSI/ASSP Z359.6 - Specifications and Design Requirements for Active Fall Protection Systems"
      b. OSHA 29 CFR 1926, "Safety and Health Regulations for Construction."
      c. OSHA 29 CFR 1926, Subpart M "Fall Protection."

1.03 ADMINISTRATIVE SUBMITTALS

A. Coordination:
   1. Coordinate layout and installation of work of this Section with interfacing and adjoining work and other Sections affecting or affected by work of this Section for proper sequencing of each installation.

1.04 ACTION SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: For each type of product.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
   2. Include rated capacities; weights; furnished specialties; and accessories.

C. Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication and assembly of guardrail systems, as well as procedures and diagrams.
   1. Show complete layout and configuration of guardrail systems including all components and accessories.
   2. Clearly indicate design and fabrication details and installation details.
   3. Include plans, elevations, sections, details, and attachments to other Work
   4. Include installation and rigging instructions and all necessary Restrictive and Non-Restrictive Working Usage Notes and General Safety Notes.
   5. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

D. Delegated-Design Submittal: Include design data calculations for guardrail systems for which design is assigned to Contractor.

1.05 INFORMATIONAL SUBMITTALS

A. Manufacturers' instructions for each product.

B. Field quality control test and inspection reports.

C. Qualification Statements
   1. Include manufacturer's approval for installer.
   2. Include list of past Projects and contacts evidencing compliance with specified qualifications.

1.06 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For guardrail systems to include in operation and maintenance manuals.
   1. Requirements for guardrail systems including complete instructions for users and building maintenance personnel for the safe and proper use, operation,movement and maintenance of guardrails and their components.
   2. Provisions for pre-operational, operation, and maintenance inspections. Include a Log Book outlining mandatory annual inspection requirements that are in accordance with ANSI and OSHA Regulations and Industry Standards.
   3. Plan view drawing of the building's roof, including the building name and address.
      a. Show guardrail system layout.
      b. Identify load ratings of each guardrail system.

1.07 QUALITY ASSURANCE

A. Qualifications:
   1. Manufacturer Qualifications: Minimum (5) years experience
      a. Company: One specializing in the design, fabrication and installation of guardrail systems specified in this Section and whose products have a record of successful in-service performance.
      b. Manufacturer shall maintain specific liability insurance (products and completed operations) in the amount of$2,000,000.00 to protect against product/system failure.
   2. Installer Qualifications: Minimum (5) years experience
      a. Company: A firm or individual certified, licensed, or otherwise qualified or employed by guardrail systems manufacturer as experienced and with sufficient trained staff to install manufacturer's products according to specified requirements. A manufacturer's willingness to sell its materials to Contractor or to an installer engaged by Contractor does not in itself confer qualification on the buyer.
      b. Project Experience: Minimum (5) years experience on at least (5) projects of similar nature in past (5) years.
      c. Staff: Employ a competent foreman who is a Competent Person as defined in 29 CFR § 1926.32(m) and who is a certified installer to supervise Work of this Section. Foreman shall be present whenever Work is in progress.
   3. Welder Qualifications: Welders must be qualified to applicable AWS Standards for each type of weld required.
   4. Design Professional Qualifications:
      a. Professional engineer employed by the guardrail systems manufacturer and experienced in design and engineering of guardrail systems and their application and safety requirements, licensed in jurisdiction in which Project is located, and who assumes responsibility for the following:
         1) Preparation of comprehensive engineering analysis data.
         2) Preparation of engineering calculations.
         3) Preparation of shop drawings and other submittals.
         4) Testing program development.

5) Review and corroborate comments from Architect and other reviewers on delegated-design submittals and address required changes in their design.

B. Certifications:
1. Inspection certificates and use permits for guardrail systems.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements: Deliver materials in manufacturer’s undamaged packaging, complete with installation instructions.

B. Warranty
1. See Section 017800 - Closeout Submittals for additional warranty requirements.
2. Manufacturer's Standard Warranty: Manufacturer agrees to repair or replace components of guardrail systems that fail in materials or workmanship within specified warranty period.
3. Warranty Period: 2 year(s) from date of Substantial Completion:

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products as furnished by the following:

B. SafePro Safety Products, Garlock Safety Systems Rail

C. Substitutions will be considered. Comply with provisions of Division 01 Section " SUBSTITUTION PROCEDURES"

D. Project Source Limitations: Obtain each variety of fall protection equipment, whether specified in this Section or in other Sections, through one source from a single manufacturer who is capable of showing prior successful production of units similar to those required for entire Project.

2.02 DESCRIPTION

A. Rooftop guardrail systems consist of the following:
1. Permanent, non-penetrating pipe & component inward-leaning guardrails with ballasted guardrail bases.

B. Product Options: Drawings shall indicate suggested locations profiles and dimensional requirments of guardrail systems and are based on the specific system indicated. Final locations shall be determined according to guardrail system manufacturer's design requirements.
1. If modifications are proposed, submit, with Shop Drawings, comprehensive explanatory data to Architect for review.

C. Regulatory Requirements: Provide rooftop guardrail systems and anchorage designed and constructed to suit building configuration and in accordance with the Contract Documents and applicable regulations and codes.
1. Comply with the following OSHA regulations:
a. OSHA 29 CFR 1926, Subpart M "Fall Protection."

2.03 PERFORMANCE / DESIGN CRITERIA

A. Delegated Design: Professional design services are specifically required of Contractor. Engage a qualified design professional to design rooftop guardrail systems using performance requirements and design criteria specified herein.
1. Design Criteria:
a. Rooftop guardrail systems shall comply with current applicable federal, OSHA, ANSI, and state regulations and standards.
b. Design rooftop guardrail systems and provide clearances that will allow for installation tolerances, and expansion and contraction of adjacent building materials.

B. Structural Performance Criteria: Provide rooftop guardrail systems complying with specific performance and design criteria indicated, capable of withstanding, without failure, the effects

of gravity loads and in-use loads and stresses under conditions indicated or reasonably anticipated. Include necessary modifications to meet required criteria.

1. Contract Documents may indicate certain performance requirements, features, and primary components required, but do not cover details of design and construction, and do not purport to identify nor solve problems of thermal or structural movement or moisture disposal. Requirements shown by details are intended to establish basic locations and dimension of rooftop guardrail systems.
2. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
3. Compliance with requirements of authorities having jurisdiction is the responsibility of Contractor.

2.04 GUARDRAILS

A. Design Criteria: Design for the following:
   1. Top rail 42 inches high and capable of withstanding a load of at least 200 lbf (0.89 kN) applied in any direction at any point.
   2. Midrail at 21 inches high and capable of withstanding a force of at least 150 lbf (0.67 kN) applied in any downward or outward direction at any point.

B. Pipe & Component Guardrail System:OSHA compliant, freestanding, contoured, inward-leaning non-penetrating, counterweighted, 42 inch high guardrail system to prevent falls from open sides of roof including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation.
   1. Basis of Design Product: Contoured Pipe & Component Guardrail System by SafePro Safety Products.
   2. Counterweighted Guardrail Bases: Cast iron with three off-centered stanchion receiver sockets.
   3. Finish: Galvanized.
   4. Roof Protection Pads:1/4 inch thick, resilient pad larger than bases and compatible with roof membrane.
   5. Tubing: ASTM A 500/A500M, Galvanized
      a. Rail Units: Single length pipe; vertical supporting posts bent inward away from roof edge.
      b. Finish: Hot-dip galvanized
   6. Fittings: Manufacturer's standard cast metal alloy, elbows, tees, crossings, and other types to suit application.
   7. Gates: Self-closing swing gates where indicated. Match railing materials and finish.

2.05 MATERIALS

A. Steel Plates, Shapes, and Bars: ASTM A36/A 36M.

B. Steel Pipe: ASTM A53/A 53M, Standard Weight (Schedule as indicated) unless otherwise indicated.

C. Steel Tubing: ASTM A1085 or A500 or A1065, cold-formed hollowed strucutral sections (HSS) steel tubing.

2.06 FASTENERS

A. General: Select fasteners and anchors for type, grade, and class required. Unless otherwise indicated, provide fasteners as follows:
   1. Material for exterior locations exposed to weather: hot-dip galvanized fasteners per ASTM F2329

B. High-Strength Steel Bolts and Nuts: ASTM A325, Type 3 regular hexagon-head bolts; with ASTM A563, Grade C3 hex nuts; and, where indicated, flat washers.

C. Steel Bolts and Nuts: ASTM A307, Grade A regular hexagon-head bolts; with ASTM A563 hex nuts; and, where indicated, flat washers.

D. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors designed for and recommended by anchorage manufacturer for conditions encountered.

2.07 MISCELLANEOUS MATERIALS

A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.

B. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.

C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

2.08 FABRICATION

A. Factory fabricate portable guardrail sections to include top rail bent downward to form two upright posts with a midrail welded between the uprights.

2.09 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A153/A153M for steel and iron hardware and with ASTM A123/A123M for other steel and iron products.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions:
   1. Examine roof and other mounting surfaces for suitable conditions where guardrail systems will be installed for compliance with requirements for operational clearances and other conditions affecting performance of work.
   2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Coordinate location of guardrail systems indicated to be permanently attached to structure or roofing system and provide appropriate anchoring devices with installation templates, diagrams, and manufacturer's instructions.

3.03 INSTALLATION

A. Comply with manufacturer's written installation instructions and recommendations, referenced standards, requirements of authorities having jurisdiction, and approved submittals.

B. Install products in place to obtain the required working loads without exceeding allowable loads for each guardrail system.

3.04 REPAIR

A. Repairing Damaged Finishes: Immediately after installation, clean abraded and other areas where coatings are damaged.
   1. Galvanized Surfaces: Clean bolted connections and abraded areas and repair galvanizing to comply with ASTM A780/A780M.
   2. Factory-Finish Touchup: Clean abraded areas and repair with same material used for factory finish per manufacturer's written instructions.

3.05 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements for additional requirements.

B. Manufacturer's Field Services:
   1. Require product manufacturers to provide field surveillance of the installation of their products.
   2. Monitor and report installation procedures, and unacceptable conditions.
   3. Engage manufacturer's Qualified Person to perform field tests and inspections and to prepare test reports.

C. Testing Services: Testing and inspecting of completed applications of guardrail system work shall take place in successive stages as guardrail systems are installed. Do not proceed with work for the next area until test results for previously completed applications of work show compliance with requirements.
   1. Prepare a written report to Contractor with copy to Architect and Owner including the date and results of the inspection, the signature of the person who performed the inspection, and the number, or other identifier, of the building support structure and equipment which was inspected.

D. Do not load or stress system until materials and fasteners are properly installed and ready for service.

E. Remove and replace work where test results indicate that it does not comply with specified requirements.

F. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.06 PROTECTION

A. Protect roof surfaces from damage during installation.

END OF SECTION

SECTION 061000
ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Roofing nailers.

B. Preservative treated wood materials.

C. Fire retardant treated wood materials.

D. Concealed wood blocking, nailers, and supports.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

C. Section 033000 - Cast-in-Place Concrete: Setting anchors in concrete.

1.03 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.

B. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).

C. ASTM D3498 - Standard Specification for Adhesives for Field-Gluing Wood Structural Panels (Plywood or Oriented Strand Board) to Wood Based Floor System Framing; 2019a.

D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2021a.

E. AWPA U1 - Use Category System: User Specification for Treated Wood; 2018.

F. PS 20 - American Softwood Lumber Standard; 2020.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

1.05 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
   1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
   2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER

A. Sizes: Nominal sizes as indicated on drawings, S4S.

B. Moisture Content: S-dry or MC19.

C. Rough lumber shall be grade #2 or better, dressed four sides, of spruce, pine, douglas fir, or equal, in shapes and sizes as required.

D. Structural lumber shall be grade #2 or better kiln dried, 1,000 psi bending, unless noted elsewhere (spruce/pine/fir).

E. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.

2.03 CONSTRUCTION PANELS

A. General Plywood shall be CDX Grade, with exterior glue - such as 1/2" thick shall be 4 ply.

2.04 ACCESSORIES

A. Fasteners and Anchors:
   1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
   2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
   3. Anchors: Toggle bolt type for anchorage to hollow masonry.
   4. Install all work with nails, spikes, screws, joist hangers and similar items of approved sizes and types. Exterior framing anchors to be galvanized.

B. Construction Adhesives: Adhesives complying with ASTM C557 or ASTM D3498.

2.05 FACTORY WOOD TREATMENT

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
   1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
   2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

B. Fire Retardant Treatment:
   1. Interior Type A: AWPA U1, Use Category UCFA, Commodity Specification H, low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread index of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes. Each piece of lumber and plywood shall be U.L. labeled. Install per code requirements.
      a. Kiln dry wood after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood.
      b. Treat rough carpentry items as indicated .
      c. Do not use treated wood in applications exposed to weather or where the wood may become wet.

C. Preservative Treatment:
   1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
      a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
      b. Treat lumber exposed to weather.
      c. Treat lumber in contact with roofing, flashing, or waterproofing.
      d. Treat lumber in contact with masonry or concrete.
   2. Preservative Pressure Treatment of Plywood Above Grade: AWPA U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative.
      a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.

3. Preservative Pressure Treatment of Lumber in Contact with Soil: AWPA U1, Use Category UC4A, 1,200 psi construction grade, Commodity Specification A using waterborne preservative.
    a. Preservative for Field Application to Cut Surfaces: As recommended by manufacturer of factory treatment chemicals for brush-application in the field.
    b. Restrictions: Do not use lumber or plywood treated with chromated copper arsenate (CCA) in exposed exterior applications subject to leaching.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Select material sizes to minimize waste.

B. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

C. Install all temporary guardrails, walks, forms, bracing, shoring, etc., as required for the work or safety.

D. Install any necessary temporary enclosures for door openings, barricades, etc., to close off work for security or moisture/temperature protection.

E. See Concrete Division #3 for formwork.

F. Unless otherwise noted, install all nailers or plates on beams or masonry walls per Michigan Building Code and secure with 1/2" diameter bolts, spaced 4'-0" on center with (2) anchors minimum per piece and not closer than 4” or greater than 12” from each end. Provide and install nuts/washers/plates of proper size per code.

G. Provide all necessary framing around ductwork, registers, vents, etc. Included are nailers and blocking for drywall, cabinets, grab bars, handrails, toilet partitions, window drapes (2x12 each side of window), etc.

H. Provide and install fire blocking in walls at 10'-0" height, at ceiling lines, behind soffits, around modular tub/shower units, etc., as noted or required by code. Draft stops shall consist of 1/2" CDX plywood.

3.02 BLOCKING, NAILERS, AND SUPPORTS

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to authorities having jurisdiction may be used in lieu of solid wood blocking.

C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.

D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.

E. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

3.03 ROOF-RELATED CARPENTRY

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

END OF SECTION

SECTION 075323
EPDM THERMOSET SINGLE-PLY ROOFING - CARLISLE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Adhered roof system with ethylene propylene diene monomer (EPDM) roofing membrane.

B. Insulation, flat and tapered.

C. Flashings.

D. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

1.03 REFERENCE STANDARDS

A. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015.

B. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; 2016, with Editorial Revision (2022).

C. NRCA (RM) - The NRCA Roofing Manual; 2026.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's written information listed below.
   1. Product data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.

C. Shop drawings must be submitted to Carlisle by the Carlisle Authorized Roofing Applicator along with a completely executed Notice of Award (Page 1 of Carlisle's Request for Warranty form) for approval. Approved shop drawings are required for inspection of the roof and on projects where on-site technical assistance is requested.

D. Shop Drawings must include:
   1. Outline of roof and size
   2. Deck type (for multiple deck types)
   3. Location and type of all penetrations
   4. Perimeter and penetration details
   5. Key plan (on multiple roof areas) with roof heights indicated
   6. Sure-Seal Fastener type, length and maximum spacing or Fast Adhesive ribbon spacing (for insulation securement)

E. Along with the project submittals (shop drawing and Request for Warranty), the roofing contractor must include pullout test results when the results are below the requirements identified in the Table included in Design Reference DR-06-11 “Withdrawal Resistance Criteria”.

F. Upon completion of half the project, the contractor shall notify Carlisle and pay any fee to make "mid-way inspection" to ensure work is being installed per the manufacturer's standard details. Note: no more than 50% of the contact amount will be paid to the Contractor prior to this inspection being made by the roofing manufacturer.

G. After project completion, the Contractor must be submitted a Notice of Completion, (Page 2 of the Carlisle Request for warranty form) to Carlisle to schedule the necessary inspection and acceptance of the project prior to issuance of the Carlisle warranty. An inspection shall be made by a representative of Carlisle SynTec Systems in order to ascertain that the Roofing

System has been installed according to Carlisle SynTec System's published specifications and details.

H. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

I. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and other supplementary instructions.

J. Warranty:
   1. Upon approval of the installation, Carlisle shall submit a watertight full system guarantee for twenty (20) years against defects due to material or workmanship. This shall not be construed to cover misuse or abuse. The warranty shall include wind speed (Maximum Peak Gusts) up to 72 mph. Also, a manufacturer's guarantee shall be submitted for twenty (20) years on the membrane materials.
   2. Total System Warranty - Contractor shall state the amounts on the bid proposal form to provide and install only materials from among those supplied or approved by Carlisle for the total roofing system. All components of the entire roofing system are to be products of the manufacturer or accepted by the manufacturer as compatible. Upon approval of the installation, the manufacturer shall submit their standard full systems guarantee for (20) years against defects due to material or workmanship and their standard guarantee on membrane material - both by manufacturer. This shall not be construed to cover misuse or abuse. The Contractor shall list the manufacturer's name of the roofing system bid on the total system bid proposal form.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum twenty (20) years of documented experience.

B. Installer Qualifications: Company specializing in performing work of this section:
   1. With minimum five years documented experience.
   2. Franchised Installer - Roofing Contractor shall be franchised installers by the manufacturer of the roofing system.
   3. Experience - Roofing Contractor shall have been in the roofing business for the last five, (5) years as Roofing Installers. Contractor shall have a minimum of 5 years' experience and have installed a minimum of five, (5) re-roofs similar to this project size or larger using the materials and manufacturers as herein specified. Written verification shall be submitted with bid proposal, stating references and jobs similar in scope of this project.
   4. Location - Roofing Contractors shall be located within approximately a fifty (50) mile radius of the City of Monroe, Michigan.
   5. Worker's Qualifications:
      a. Workmanship shall be of the highest standard throughout and in accordance with the latest and best standard practices of the trade. Only skilled workmen in the task assigned them shall be employed.
      b. A Roofer shall have a minimum of two years' experience installing the material herein specified, or certification from the roofing manufacturer or from a Federal or Michigan State approved program, or trade school, or certification from a local trade union having the classification of a journeyman.
      c. A Roofer's helper shall be anyone performing roofing related work (excluding the installation of roofing materials), such as tear-offs, carrying materials, mixing materials, cleaning up, etc.
      d. An apprentice Roofer is one who is registered in a bonafide program as registered with the U.S. or State of Michigan Department of Labor.
      e. The proportion of apprentices and helpers shall not exceed (1) helper and/or (1) apprentice to every (3) Roofers. An apprentice may do the work of a helper.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

B. Protect products in weather protected environment, clear of ground and moisture.

C. Protect foam insulation from direct exposure to sunlight.

D. Keep Safety Data Sheets (SDS) at the project site at all times during transportation, storage, and installation of materials.

E. Comply with requirements from Owner to prevent overloading or disturbance of the structure when loading materials onto the roof.

1.07 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
   1. Warranty Term: 20 years.
   2. For repair and replacement include costs of both material and labor in warranty.
   3. Exceptions NOT Permitted:
      a. Damage due to roof traffic.
      b. Damage due to wind of speed greater than 56 mph (90 km/h) but less than 90 mph (145 km/h).

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Carlisle SynTec: www.carlisle-syntec.com/#sle.

B. The following roofing system manufacturers, in addition to Carlisle, have submitted written documentation of products, guarantee, testing, etc., and are approved by the Architect.
   1. Firestone "Rubbergard" Fully Adhered 60 Mil

C. Substitutions: See Section 016000 - Product Requirements.

2.02 ROOFING APPLICATIONS

A. Furnish and install Bonded, Sure Seal, Design "A" Rubber Membrane Roofing System indicated on drawings and specified herein.

B. Roofing Assembly Performance Requirements and Design Criteria:

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

A. Membrane:
   1. Material: Ethylene propylene diene monomer (EPDM); ASTM D4637/D4637M, Type I (non-reinforced).
   2. Thickness: 60 mil, 0.060 inch (1.5 mm), minimum.
   3. Sheet Width: Factory fabricated into largest sheets possible.
   4. Color: Black.

B. Seaming Materials: As recommended by membrane manufacturer.

C. Flexible Flashing Material: Same material as membrane.

D. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

2.04 INSULATION

A. Standard insulation on metal deck shall be nominal 2.6" thickness, with a minimum aged "R" Value of 15.0, installed in two layers with staggered seams as noted on plans, (total R-30.0) when tested per ASTM C1289-11A effective January 1, 2014, of closed cell isocyanurate core with fibrous mat facings, equal to Carlisle InsulBase Polyisocyanurate, Grade 3, (25 psi.) insulation or other F.M. approved insulations, as manufactured by Carlisle, or equal as approved by the roofing membrane manufacturer. Adjust nailer thickness accordingly. Before ordering, submit approved letter from insulation manufacturer to the Architect that this insulation

is approved by the roofing membrane system manufacturer (Carlisle), and will be included in their full systems twenty (20) year warranty.

B. Tapered Insulation - Shall be Polyisocyanurate tapered board - minimum of 1/2" thick Grade 3, (25 psi). Taper to be minimum 1/8" per foot slope or as noted on plans. Stagger all joints and lay in ashlar pattern. Note tapered insulation to be covered with standard insulation to allow bonding to roof membrane. Before ordering, submit approved letter from insulation manufacturer to Architect that this insulation is approved by the Roofing Membrane System Manufacturer (Carlisle) and will be included in their full systems warranty.

2.05 ACCESSORIES

A. Prefabricated Roofing Expansion Joint Flashing: Sheet butyl over closed-cell foam backing seamed to galvanized steel flanges.

B. Prefabricated Flashing Accessories:
   1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
   2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
   3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
   4. Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):

C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
   1. Length as required for thickness of insulation material and penetration of deck substrate.

D. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.

E. Sealants: As recommended by membrane manufacturer.

F. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.

G. Wood Nailers - Shall be #2 or better lumber, 2"x 6" minimum, weather resistant, pressure treated of sizes as noted or as required. Plywood to be C.D.X. grade and also pressure treated. Nails and anchors shall be hot dipped or hot tumbled, corrosion resistant galvanized steel. Wood nailers at perimeter of roof shall be installed in accordance with F.M. (I-90) guidelines. Existing wood nailers shall be re-anchored in a similar pattern. Galvanized nails or screws shall be installed to penetrate the bottom nailer a minimum of 1-1/4", using a staggered fastening pattern in two rows at 24" on center in each row (12" on center). Fastener pattern density shall be increased within 8' of roof corners in two rows at 12" on center in each row (6" on center). Contractor shall verify that all existing nailers are anchored to decking and/or wall plates similar to the pattern as listed above, or anchored to masonry and structural steel 4'-0" on center, with 1/2" diameter anchor bolts and 5/8" diameter washers.

H. Edgings and Terminations: Manufacturer's standard edge and termination accessories.
   1. Product: Snap-on edge system.
      a. SecurEdge 200.
   2. Product: Coping.
      a. SecurEdge 200 Coping.
   3. In lieu of Carlisle Secure Edge gravel stop and coping, it shall be the Contractor's option to provide and install all materials and labor required to install an equal metal fascia/gravel stop, similar in style, function and appearance, as approved by the roofing manufacturer to be included in the twenty (20) year Total System Warranty. Finish and gauge to be as specified above.
   4. Provide any matching drip extenders to cover all exposed wood nailers, common brick, etc., to same elevation as existing fascia being removed. Install matching joint covers, mitered outside corners, and inside cover plates, water dams, clips, anchors, etc., as part of the complete system.

5. Termination Bar - Shall be aluminum of thickness and width as required by Carlisle. Shall be anchored with approved fasteners in spacing's to make bar stop tight against flashing and wall with proper sealant between (Carlisle Water Cut Off).

I. Roof Drain
1. Roof drain shall be #ZC-100EARC as manufactured by Zurn, or approved equal with Duracoated cast iron body, with extension, roof sump receiver and under-deck clamp. Drain shall have combination membrane flashing clamp/gravel guard and low-silhoette cast iron dome strainer, secured with easily removed anchors for cleaning. Drain to be for 3" no-hub fittings.
2. Drainage pipe shall be service weight cast iron hubless CISPI 3001-85, ASTM A-888-90. Fittings shall be soil pipe coupling clamp-all Corp., Model 0, or Husky 4000.
3. Piping, roof sump and fittings shall be insulated with 1" thick fiberglass, nominal 4 lb. density with All Service Jacket (ASJ). Cold systems shall have a vapor barrier. Fittings, etc. may be covered with Zeston, or equal pre-molded fittings. Pre-molded sump covers by Armaflex (or similar materials) are not acceptable.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces and site conditions are ready to receive work.

B. Verify deck is supported and secure.

C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.

D. Verify deck surfaces are dry and free of snow or ice.

E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION, GENERAL

A. Clean substrate thoroughly prior to roof application.

B. Surfaces on which the Sure Seal Roofing System is to be applied shall be clean, smooth, dry, free of fins, sharp edges, loose and foreign materials, oil and grease.

C. Spud off all existing roofing to gypsum decks, as shown on plans and remove from job site in areas where noted. Be careful not to destroy or disturb any electrical conduits on bottom side of deck.

D. Do not begin work until other work that requires foot or equipment traffic on roof is complete.

E. Apply manufacturer's recommended vapor retarder or temporary roof before roof installation.

F. Install wood nailer at the perimeter of the roof and around all roof vents and any similar penetrations. The nailer shall be secured mechanically to the roof deck. The thickness of the nailer shall be as shown, or tapered such that the top of the nailer is flush with the surface to which the membrane is to be applied. Anchors to be of type and spacing's as approved by Carlisle and the Architect.

G. Auger and clean all roof drains before beginning any work

H. Before beginning work, a representative of Carlisle SynTec Systems shall examine the roof surfaces in order to insure that existing conditions are acceptable.

3.03 INSTALLATION - GENERAL

A. Perform work in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.

B. The Architect's drawings and specifications are developed and provided to the Contractor to understand the design intent of the contract. Where these details are in conflict with the standard details, recommendations and specifications of the membrane manufacturer, or affect

the guarantee, they shall be modified as required by the Contractor and approved by the Architect at no additional cost to the contract.

C. All installation and materials used in Sure Seal Universal Roofing Systems shall be as furnished and specified and conforming to all physical properties as manufactured by Carlisle SynTec Systems, a Division of Carlisle Corporation, Carlisle, PA. All details of work shall be coordinated and approved with Carlisle Corporation before starting work.

D. Do not apply roofing membrane during unsuitable weather.

E. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

F. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

G. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

H. Coordinate the work with installation of associated counter flashings installed by other sections as the work of this section proceeds.

I. When substrate preparation is responsibility of another installer, notify Architect of unsatisfactory conditions before proceeding.

3.04 INSULATION APPLICATION

A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
   1. Extend vapor retarder under cant strips and blocking to deck edge.
   2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.

B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.

C. Carlisle Sure Seal Bonded Roofing System - Shall be applied over an approved insulation, bonded to the existing roof deck with a Factory Mutual approved system. Install starting from the high point of the roof and working to the low point. Lap all seams shingle fashion in direction of drainage.

D. Attachment of Insulation:
   1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual FM DS 1-29 requirements.
   2. Insulation on roof decks shall be installed with standard insulation as specified first and followed by tapered insulation. Adjust lengths of fasteners according to thickness of insulation. Type of screw fastener, fastener pattern, etc., shall be installed as required by insulation mfr., similar to the F.M. I-90 wind up-lift requirements for metal decks. Contractor shall perform a minimum of (5) anchor pull-out tests on each roof area with the proposed membrane underlayments and fastener to assure compliance with insulation manufacturer's written recommendations. Contractor shall submit written report of pull out tests to the Architect for approval prior to ordering insulation, anchors and roofing. Pull out resistance must meet the membrane manufacturer's requirements.

E. Lay subsequent layers of insulation with joints staggered minimum 6 inches (152 mm) from joints of preceding layer.

F. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.

G. Lay boards with edges in moderate contact without forcing, and gap between boards no greater than 1/4 inch (6.4 mm). Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

H. At roof drains, use factory-tapered boards to slope down to roof drains over a distance of 18 inches (457 mm).

I. Do not apply more insulation than can be completely waterproofed in the same day.

3.05 MEMBRANE APPLICATION

A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.

B. Shingle joints on sloped substrate in direction of drainage.

C. Fully Adhered Application: Membrane shall be bonded to the insulation and substrate with the bonding adhesive recommended by the Roofing System manufacturer and shall be installed in strict conformance with the manufacturer's specifications for the "Bonded Roofing System" - Design "A". Bonding Adhesive must be applied to both the membrane and the surface to which it is being bonded.

D. Adjoining sheets of Membrane are overlapped a minimum of 3” along the length of the membrane (at selvage edged) in preparation for membrane splicing. At end laps (along the width of the sheet), membrane shall be overlapped 1/2” to 1” which will be overlaid with 6” wide Pressure-Sensitive Flashing. Note: all splices shall be overlaid with 6” wide Pressure-Sensitive Flashing for a 20-year warranty.

E. All field splices of roofing membrane shall be installed using the double sided adhesive tape method with membrane thoroughly cleaned with "splice-wash", as manufactured and specified by Carlisle. Tape width shall be minimum of 6". Coat edge of final seam with lap sealant.

F. Membrane Splicing with SecureTape:
   1. Prime the splice area with Sure-Seal Primer.
   2. Apply SecureTape to bottom membrane sheet with the edge of the release film along a line marked 1/2” out from the top sheet. Press tape onto sheet using hand pressure, overlapping tape, roll ends a minimum of 1”.
   3. Remove the release film and press the top sheet onto the tape using hand pressure. Roll the splice with a 2” wide steel roller.
   4. Install a 6” wide section of Pressure-Sensitive Flashing or Elastoform Flashing over all field splice intersections and seal edges of flashing with Lap Sealant.
   5. The use of Lap Sealant along the entire splice edge is optional, except at tape overlaps.

G. Membrane Splicing with Splicing Cement:
   1. When using Sure-Seal (black) Membrane, cleaning the splice area is not required unless the membrane has been contaminated with field dirt, adhesive or other residue.
   2. Apply Splicing Cement at a rate of approximately 100 square feet per gallon. Just prior to closing the splice, apply a 1/8” to ¼” diameter bead of In-Seam Sealant a minimum of ½” from the inside edge of the bottom membrane and a minimum of 2” from the lead edge.
   3. Roll the top membrane sheet onto the mating surface and roll the splice with a 2” wide steel roller.
   4. After adjoining membrane sheets have been splice together, wait a minimum of 2 hours and, if necessary, clean exposed edge of splice with Splice Cleaner or HP-250 Primer. Apply a 5/16” diameter bead of Lap Sealant and feather to completely cover the splice edge.

H. Flashing
   1. When feasible, flash all walls, curbs, etc., with continuous deck membrane. When the use of continuous membrane is not feasible, a separate piece of Cured EPDM Flashing, or Uncured Membrane may be utilized.
   2. Uncured Elastoform Flashing and Pressure-Sensitive Uncured Flashing shall be limited to overlaying vertical field seams, inside/outside corners, scuppers or other unusually shaped walls or penetrations; where use of Cured EPDM Flashing, EPDM Membrane, Pressure-Sensitive Flashing or Prefabricated accessories (pipe seals, Pourable sealer pockets, corners), is not practical.
   3. When using Pressure-Sensitive Flashing (semi-cured or cured) to overlay metal edging flanges, etc., Sure-Seal Primer must be used to clean the membrane and metal surfaces. Lap Sealant is optional on straight runs of Pressure-Sensitive Flashing and around Pressure-Sensitive Pipe Seals.

4. Terminate the flashing in accordance with the appropriate FB-9 Termination Detail.
5. Copings, counter flashing and metal work, not supplied by Carlisle, shall be fastened to prevent metal from pulling free or buckling and sealed to prevent moisture from entering the roofing system or building.

I. **(for gypsum deck installation)** Insulation on roof decks shall be installed with standard insulation as specified first and followed by second layer insulation. Check to ensure the substrate is dry. FAST Adhesive cannot be applied to a wet or damp surface.
1. Spray apply Sure-Seal FAST Adhesive over the dry substrate, (gypsum decks) at a coverage rate recommended by the manufacturer to allow for full coverage. (ribbons of adhesive greater than 6” on center will not be allowed).
2. Allow the adhesive to rise up approximately 1/8” and set insulation boards into adhesive. Continue to install boards into the adhesive and after the necessary set up time (will vary based on temperature and amount of catalyst added) walk the boards into the adhesive and using the 30” wide, 100-150 pound weighted steel roller to ensure full embedment. Optimal set up time should be approximately 5 to 10 minutes. One person should be designated to walk/roll in all boards and trim/slit or apply weight as needed to ensure adequate securement.
3. When multiple layers of insulation are specified or required, spray apply FAST Adhesive over the base layer once fully secured and follow the procedures noted above for attachment of each insulation layer.

J. At intersections with vertical surfaces:
1. Extend membrane over cant strips and up a minimum of 4 inches (102 mm) onto vertical surfaces.
2. Provide and install all necessary bar stops as detailed or required to terminate flashings.
3. Install sealant on top in all exposed areas to adhere to the bar stop and masonry. Shall be as approved by manufacturer (Carlisle Lap Sealant).

K. Install roofing expansion joints where indicated, and ensure joints are watertight.

L. Install prefabricated joint components in accordance with manufacturer's instructions.

M. Install fascia, roof edge, copings in strict conformance with Carlisle's specifications. Install clips, anchors, mitered corners, etc. Seal all fasteners with elastoform lap splice and sealant on topside of gravel stop.

N. Coordinate installation of roof drains and sumps and related flashings, locate field splices away from low areas and roof drains, and lap upslope sheet over downslope sheet. Support new cast iron horizontal pipe at each joint and not more than 5' intervals. Where no-hub fittings are utilized, install hangers per manufacturer's installation instructions, or install hanger each side of no-hub fittings and at 5' intervals. New cast iron drainage piping shall connect into existing cast iron drainage piping, above the suspended ceiling, using appropriate cast iron, no-hub wye fittings with clean-out.

O. Daily Seal: Install daily seal per manufacturers instructions at the end of each work day. Prevent infiltration of water at incomplete flashings, terminations, and at unfinished membrane edges.

3.06 RELATED WORK

A. Where noted on drawings, or where required in areas of new roofing, re-work all electrical conduits, wiring, gas lines, control wiring, etc.

B. Provide and install all necessary blocking, clamps, fasteners, fittings, elbows, junction boxes, etc., as required.

3.07 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for general requirements for field quality control and inspection.

B. Require site attendance of roofing and insulation material manufacturers daily during installation of this work.

3.08 CLEANING

A. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.

B. Remove wrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.

C. Remove bituminous markings from finished surfaces.

D. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.

E. Repair or replace defaced or damaged finishes caused by work of this section.

3.09 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

SECTION 076200
SHEET METAL - FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Fabricated sheet metal items, including flashings, counterflashings, and exterior penetrations.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

C. Section 042000 - Unit Masonry: Metal flashings embedded in masonry.

D. Section 061000 - Rough Carpentry: Wood nailers for sheet metal work.

E. Section 079200 - Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

1.03 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.

B. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.

C. CDA A4050 - Copper in Architecture - Handbook; Current Edition.

D. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.05 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with min. 5 years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.

B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

C. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

A. Pre-Finished Aluminum: ASTM B209/B209M; 20 gauge, 0.032 inch (0.81 mm) thick; plain finish shop pre-coated with fluoropolymer coating.
   1. Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; pretreated metal with two-coat system including primer and color coat with at least 70 percent PVDF coating.
   2. Color: As selected by Architect from manufacturer's standard colors. Option of selecting (1) matching color for all gutters, downspouts, or fascia, or (3) separate colors.

3. Manufacturer to be same as other roofing or siding material providers specified elsewhere for same color match. In the absence of any, all products shall be as manufactured by ATAS International, Inc., Allentown, PA. as distributed by Inside Technical Sales, 610-393-8446 or approved equal.

B. Finished color of exposed panels, trim, fascia, closers, etc., shall be selected from manufacturer's standard colors. Contractor shall submit color charts and samples to Architect for Owner's approval prior to fabrication.

2.02 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Form pieces in longest possible lengths.

C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.

D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

E. Fabricate corners from one piece with minimum 18-inch (450 mm) long legs; seam for rigidity, seal with sealant.

F. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing _____. Return and brake edges.

2.03 WARRANTY

A. The manufacturer shall furnish the standard metal panels, standard accessories and components, which shall be covered by its twenty (20) year warranty for finish against loss of finish adhesion, blistering, cracking, peeling, fading and other visible manufacturing defects.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify all conditions and dimensions of building and work of other trades before proceeding. Examine for any foreign material and unevenness, which would prevent the execution and quality of installation and watertightness expected.

3.02 INSTALLATION

A. Provide all shims, trim furring, blocking, etc., in order to accomplish a job true in alignment and securely anchored.

B. Install all work in strict conformance and as recommended by the manufacturer.

C. Work shall be installed as detailed, using pre-formed accessories, or job site bent for a first class installation. Bends shall be clean, straight and sharp - free of any waves and buckles. "Tin canning" effect shall be at a minimum. Proper back-up shall be installed. Joint spacing shall be the minimum dimension consistent with allowing thermal movement without buckling.

D. Install all material level and plumb in true alignment and securely anchored. Siding shall be full lengths. No short pieces less than 4' in length shall be used for gable and eave fascia. Ends of pieces shall be staggered between rows. In general, seams shall overlap in direction of water flow. Install in strict conformance with manufacturer instructions.

E. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..

F. Fasteners shall be of size to penetrate into studs/siding and installed to a point to allow metal to expand and contract (not driven home). No exposed fasteners are permitted. Allow sufficient end clearance to permit movement - no tight forced fits will be allowed. Number and spacing of nails shall be as recommended by the sheet metal industry and to keep material from rattling with normal wind and for UL-90 Rating. Anchor all fascia or roof panels at bottoms to allow expansion to occur at top or ridge.

G. Apply plastic cement compound between metal flashings and felt flashings.

H. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

I. Touch up any scraped material with matching paint. Replace dented materials.

J. Install caulking as noted elsewhere, and/or as required for a weather resistant installation.

3.03 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements for field inspection requirements.

B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.04 GUARANTEE

A. At completion, this Installer/Contractor shall provide a written warranty for watertightness of metal roofing/fascia, soffit, gutters, downspouts and all related items for a system for a period of five (5) years from date of final payment. It shall include at no cost to the Owner, all labor, materials and equipment to repair and/or replace any or all of the work described herein. Submit watertightness/installation guarantee on company's letterhead. Also submit metal manufacturer's warranty as noted earlier.

END OF SECTION

SECTION 078400
FIRESTOPPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Firestopping systems.

B. Firestopping of joints and penetrations in fire-resistance-rated and smoke-resistant assemblies, whether indicated on drawings or not, and other openings indicated.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

1.03 REFERENCE STANDARDS

A. FM (AG) - FM Approval Guide; current edition.

B. ITS (DIR) - Directory of Listed Products; current edition.

C. UL (FRD) - Fire Resistance Directory; Current Edition.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on product characteristics, performance ratings, and limitations.

1.05 QUALITY ASSURANCE

A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.
   1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
   2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC-ES) at www.icc-es.org will be considered as constituting an acceptable test report.
   3. Submission of actual test reports is required for assemblies for which none of the above substantiation exists.

1.06 FIELD CONDITIONS

A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.

PART 2 PRODUCTS

2.01 MATERIALS

A. Fire Stop Insulation – Shall be “ThermaFiber Fire Safing Insulation” unfaced, flame spread 15, smoke develop 0, as manufactured by Thermafiber Inc, Toledo, Oh. (888-834-2371) Blanket size is 4” thick x 24” x 48”.

B. Fire Stopping - One part silicone sealant equal to Dow Corning 3-6548 RTV foam, flame spread of 20 per ASTM E-84-76A or Tremco “TREMstop Fyre Sil”.

C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.

D. Fire Ratings: Refer to drawings for required systems and ratings.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify openings are ready to receive the work of this section.

3.02 PREPARATION

A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.

B. Remove incompatible materials that could adversely affect bond.

C. Install backing materials to prevent liquid material from leakage.

3.03 INSTALLATION

A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.

B. Joints deeper than 1/2" shall be built up to a depth of 3/8" below adjacent surfaces with approved compacted filler material prior to applying sealant.

C. Do not cover installed firestopping until inspected by authorities having jurisdiction.

3.04 CLEANING

A. Clean adjacent surfaces of firestopping materials.

3.05 PROTECTION

A. Protect adjacent surfaces from damage by material installation.

END OF SECTION

SECTION 079200
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Nonsag gunnable joint sealants.

B. Joint backings and accessories.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

C. Section 078400 - Firestopping: Firestopping sealants.

D. Section 079100 - Preformed Joint Seals: Precompressed foam, gaskets, and strip seals.

E. Section 079513 - Expansion Joint Cover Assemblies: Sealants forming part of expansion joint cover assemblies.

F. Section 087100 - Door Hardware: Setting exterior door thresholds in sealant.

G. Section 088000 - Glazing: Glazing sealants and accessories.

H. Section 092220 - Non-Structural Metal Framing: Sealing between framing and adjacent construction in acoustical and sound-rated walls and ceilings.

I. Section 092300 - Gypsum Plastering: Sealing acoustical and sound-rated walls and ceilings.

J. Section 093000 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

1.03 REFERENCE STANDARDS

A. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.

1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
2. List of backing materials approved for use with the specific product.
3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
4. Substrates the product should not be used on.
5. Substrates for which use of primer is required.
6. Substrates for which laboratory adhesion and/or compatibility testing is required.
7. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
8. Sample product warranty.

C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years documented experience.

B. Installer Qualifications: Company specializing in performing the work of this section and with at least five years of documented experience.

1.06 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Correct defective work within a five year period after Date of Substantial Completion.

C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal , exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 JOINT SEALANTS - GENERAL

A. Colors: as selected from manufactures complete colors.

2.02 JOINT SEALANTS

A. General Exterior - One part polyurethane sealant equal to Vulkem 116, or Tremco Dymonic 100.

B. General interior - Acrylic latex paintable sealant caulking equal to Tremco #834.

C. Fire Stopping - One part silicone sealant equal to Dow Corning 3-6548 RTV foam, flame spread of 20 per ASTM E-84-76A or Tremco “TREMstop Fyre Sil”.

D. Fixtures/Counters - One part mildew resistant silicone equal to Dow Corning #786.

E. Compression Joints - one part, butyl #440 Tape, 1/16" or 1/8" by 3/8" or 1/2" wide in Grey or Black color as manufactured by Tremco.

F. Asphalt Compatible – Sealtight pointing mastic, available in 29 oz. cartridges as manufactured by W.R. Meadows.

2.03 ACCESSORIES

A. Primer - A quick drying clear primer as recommended by manufacturer shall be used where required.

B. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.

C. Filler Material - Polyurethane foam rod stock, non-gassing, open-cell, equal to Tundra Foam, as manufactured by Industrial Thermo Polymers Limited, 2316 Delaware Avenue, Suite 216, Buffalo, NY 14216 (212-475-2000) and as distributed by Williams Products, Inc., Troy, MI. (248-643-6400). Size shall be such that when compacted, it equals 2/3 of its original width, or as recommended by the sealant manufacturer. Tundra foam rod stock is black (ebony) color, compatible with hot pour and cold applied sealants.

D. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

E. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that joints are ready to receive work.

B. Verify that backing materials are compatible with sealants.

C. Verify that backer rods are of the correct size.

3.02 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.03 INSTALLATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Perform installation in accordance with ASTM C1193.

C. Joints deeper than 1/2" shall be built up to a depth of 3/8" below adjacent surfaces with approved compacted filler material prior to applying sealant.

D. Install bond breaker backing tape where backer rod cannot be used.

E. Sealant shall be installed in strict conformance with the manufacturer's recommendations. Compounds shall generally be applied by means of a handgun. Use special nozzles as required for hard to apply areas. Exercise extreme care to prevent smearing on adjacent surfaces. A full head of sealant shall be applied into joint under sufficient pressure to fill all voids and joints solidly, drawing nozzle across sealant to leave a slightly concave surface.

F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.

G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.

H. Neatly tool joints to slightly concave surface, using tooling agent recommended by sealant manufacturer. Repair any air pockets exposed by tooling. Tool so as to compress material and improve adhesion to surfaces joined. Sealant bead shall be of width/depth and cross section as recommended by manufacturer.

I. Sealed joints shall not be touched, washed, or otherwise disturbed for 48 hours, to allow sealant to cure.

J. Final appearance of joint shall be without sags, ripples, globs and waviness. It shall be a straight, uniform sized, continuous flow of material. Work in and blend where one stroke flow ends and other begins.

K. Joints shall be caulked before painting adjacent work. Do not paint over any sealant unless allowed by manufacturer.

L. When concrete walks abutt vertical walls and aprons, the expansion joint material is to be held down ½” and sealed flush with polyurethane sealant to not pond water.

M. Caulk all joints as called for on the drawings, or specified herein as required to complete the work including, but not limited to, caulking of the following:
   1. Exterior heads and jambs of door frames.
   2. At intersections of aluminum work with other materials, etc.
   3. Under exterior door/window thresholds – full bed.
   4. Perimeter of louvers and grills at masonry or aluminum.
   5. Window frames (interior and exterior).
   6. Wall control and expansion joints.
   7. Counter backsplashes, plumbing fixtures, and miscellaneous trim - all against abutting walls.
   8. The edge and underside of asphalt shingles against metal drip edge on gable ends or other locations.
   9. Joints of exterior slabs/walks against buildings and in structural slabs/aprons/porches.
   10. In between lap joints of sills, flashing drips, ‘Z’ flashing and similar items.
   11. Refer to drawings for other locations.

3.04 FIELD QUALITY CONTROL

A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.

B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

3.05 POST-OCCUPANCY

A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at low temperature in thermal cycle. Report failures immediately and repair.

END OF SECTION

SECTION 092116
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Gypsum wallboard (regular).

B. Gypsum wallboard (hi-impact).

C. Joint treatment and accessories.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

C. Section 072100 - Thermal Insulation: Acoustic insulation.

D. Section 072500 - Weather Barriers: Water-resistive barrier over sheathing.

E. Section 078400 - Firestopping: Top-of-wall assemblies at fire-resistance-rated walls.

F. Section 079200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

G. Section 092220 - Non-Structural Metal Framing.

H. Section 093000 - Tiling: Tile backing board.

1.03 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2017.

B. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2018.

C. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; 2020.

D. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2020.

E. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2019.

F. ASTM C1396/C1396M - Standard Specification for Gypsum Board; 2017.

G. GA-216 - Application and Finishing of Gypsum Panel Products; 2018.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.

C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.

D. Test Reports: For stud framing products that do not comply with ASTM C645 or ASTM C754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum 5 years of experience.

PART 2 PRODUCTS

2.01 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   1. Georgia-Pacific Gypsum: www.gpgypsum.com

2. USG Corporation: www.usg.com
3. Substitutions: See Section 016000 - Product Requirements.

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
3. Thickness:
a. Vertical surfaces: Min. 5/8" thick unless called out otherwise.
b. Ceilings: min. 5/8" thick unless called out otherwise. Overlaying existing board where sufficient support may be 1/2" min.

C. Impact Resistant Wallboard: fire rated 5/8" thick "VHI" – "Fiberock" with fiberglass reinforced backing as manufactured by USG.

2.02 GYPSUM WALLBOARD ACCESSORIES

A. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise. Control joints to be zinc #093.

B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
1. Paper Tape: 2 inch (50 mm) wide, high strength creased paper tape for joints and corners.
2. Mud/Joint compound to be conventional medium weight. No lightweight materials are acceptable.

C. Adhesive shall be panel type adhesive, water resistant, weatherproof, non-toxic, non-flammable, non-combustible equal to "PL Premium Adhesive" and as approved by the drywall manufacturer.

D. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.

E. Anchorage to Substrate: Tie wire, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 BOARD INSTALLATION

A. Install gypsum board as shown on the drawings and comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations. Installation shall be a lst class job. Install with adhesive and screws. Hold drywall up from floor 1/2"+-.

B. All ends and edges of board shall occur over backing member and/or be installed to meet a U.L. one hour or two hour fire rating as detailed. Seal all gaps against adjacent existing materials (head, sill, etc.) with sealant - see Division #7.

C. Ceilings are not to be anchored to any wood roof trusses any closer than 18" to any interior non-bearing wall. Drywall shall be clipped into plates as provided and installed by others.

D. In areas of drywall ceilings with drywall soffits, drywall ceiling shall be installed first, followed by framing and ductwork. Exterior of soffit then to be covered with drywall. All shall be to maintain a 1-hour fire envelope at ceiling line.

E. Install full height "J" trim on drywall edges where interior walls abut other materials.

F. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

G. On full height walls, floor to floor/roof deck above, install drywall to form a minimum one hour envelope unless noted otherwise. Patch drywall and compound around all structural members, ductwork/fire dampers. Continue any expansion joint, full height floor to deck. Fill gaps between wall and deck, joists, and other obstructions with fire safing insulation (see other division).

H. Refer to related mechanical/electrical drawings and drywall around all ductwork, grilles, openings, sleeves, etc. that occur in the drywall work either in exposed or unexposed locations. Seal drywall work tight to the passage of air. Special areas subject to movement are to be sealed with sealant or fire safing insulation/materials.

I. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.

3.03 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Install all control joints and expansion joints consistent with lines of building spaces and in locations as required, recommended manufacturer and as noted and field verified in the field with Architect. Adjust location, provide proper ceiling\wall backing and add additional joints as required to insure proper movement of wall/ceiling without cracking.

B. Corner Beads: Install at external corners, using longest practical lengths.

3.04 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.

B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.

C. Finish gypsum board in accordance with highest level/quality level 5 or better as defined in ASTM C840, except in the following locations:
   1. Level 3: Walls to receive textured wall finish.
   2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
   3. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
   4. Level 0: Temporary partitions.

D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Apply a uniform thin layer of joint compound to all joints and angles to be reinforced. Immediately apply joint tape centered over joint and seated into compound. Sufficient compound (approximately 1/64" to 1/32") must remain under the tape to provide proper bond. Follow immediately with a thin skim coat to embed tape, but not to function as a second coat. The tape or embedding coat must be thoroughly dry prior to application of second coat.
   2. Apply second coat of joint compound over embedded coat fill panel taper flush with surface; cover tape and feather out at least 3" beyond the first coat. On joints with no taper, cover tape and feather out at least 4" on either side of the tape. Allow second coat to dry thoroughly prior to application of finish coat.
   3. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
   4. Taping, filling, and sanding are not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
   5. Taping, filling, and sanding are not required at base layer of double-layer applications.
   6. On all exposed drywall, whether scheduled for paint or finishing or not, install a finish coat of compound evenly over and extend at least 2" beyond second coat on all joints and feather to a smooth uniform finish. This step is not necessary for drywall above suspended ceilings. Do not allow finish joint to protrude beyond the plane of the surface. Where necessary, sand lightly between coats and the final application of compound to provide a smooth surface, ready for decoration. When sanding, take care

not to roughen face paper. Globs, misses gaps, etc., will not be accepted. The taping and spackling of drywall in un-exposed areas (above acoustical suspended ceilings) shall be finished the same as exposed areas, excluding the skim coat.

E. After all irregularities have been eliminated and the joint treatment surfaces sanded, apply a thin skim coat of joint compound to the entire surface of the board that is exposed to the occupied space that is scheduled for paint or finishing (above ceilings excluded). Caution should be taken to eliminate laps or tool marks in the skim coating operation. The entire surface shall be lightly sanded as required to assure a smooth and even surface. An optional method is to install a prime coat of "Sheetrock First Coat", as manufactured by USG.

F. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.05 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

SECTION 092220
NON-STRUCTURAL METAL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Metal partition, ceiling, and soffitframing.

B. Furred Walls.

C. Framing accessories.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

1.03 REFERENCE STANDARDS

A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members; 2016, with Supplement (2018).

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.

C. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; 2018.

D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2020.

E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2020.

F. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic); 2019.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Shop Drawings:
   1. Indicate prefabricated work, component details, stud layout, framed openings, anchorage to structure, acoustic details, type and location of fasteners, accessories, and items of other related work.
   2. Describe method for securing studs to tracks, splicing, and for blocking and reinforcement of framing connections.

C. Product Data: Provide data describing framing member materials and finish, product criteria, load charts, and limitations.

D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience and approved by manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Framing, Connectors, and Accessories:
   1. ClarkDietrich: www.clarkdietrich.com
   2. Marino: www.marinoware.com
   3. Substitutions: See Section 016000 - Product Requirements.

2.02 FRAMING MATERIALS

A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 10 psf (L/120 at 480 Pa).
   1. Interior Studs: C-shaped with knurled or embossed faces. Min. 22 Ga., 3-5/8 x 1-1/4". For abuse resistant installation (Defined as areas called for hi-impact drywall) studs and track to be 20 Ga.
   2. Exterior Fascia, wall, and roof curb members: Min. 20 Ga. 6" x 1-1/4" or as required for listed loads.
   3. Runners: U shaped, sized to match studs. Min. 22 Ga., 3-5/8" x 1-1/4".
   4. Ceiling Channels: C shaped min. 3-5/8” x 2.
   5. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch (22 mm).
   6. Furring Members: Zee-shaped sections, minimum 25 gauge, 3/4" deep x 2-3/4" wide.
   7. Resilient Sound Furring Channels: Single or double leg configuration; min. 25 gauge ½” deep x 2-1/2”.

B. Shaft Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.

C. Area Separation Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with specified performance requirements.

D. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws, and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
   1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
   2. Material: ASTM A653/A653M steel sheet, SS Grade 50, with G60/Z180 hot-dipped galvanized coating.
   3. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings.
   4. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-resistance rating of the wall assembly.

E. Non-Loadbearing Framing Accessories:
   1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
   2. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
   3. Metal bridging shall be galvanized, 16 Ga., 1-1/2" cold-rolled channels at 4’-0” o.c. from finished floor.
   4. Fasteners: ASTM C1002 self-piercing tapping screws.
   5. Acoustic Insulation: As specified in Section 072100.
   6. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic.

2.03 FABRICATION

A. Fabricate assemblies of framed sections to sizes and profiles required.

B. Fit, reinforce, and brace framing members to suit design requirements.

C. Fit and assemble in largest practical sections for delivery to site, ready for installation.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that rough-in utilities are in proper location.

3.02 INSTALLATION OF STUD FRAMING

A. Comply with requirements of ASTM C754.

B. Walls to be installed to meet a U.L. (1) hour rating, or (2) hour fire rating as detailed.

C. See plans for wall heights – some to be full height from floor to floor/roof, floor to ceiling, floor to above ceiling, etc. All to be floor to roof unless noted otherwise. Maintain gap to deck (1/2”+) to allow deck movement. Gap remaining to be filled with fire safing insulation (see other division).

D. Extend partition framing to structure where indicated and to ceiling in other locations.

E. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.

F. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

G. Align and secure top and bottom runners at 24 inches (600 mm) on center.

H. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.

I. Studs: Space studs at 16 inches on center (at 406 mm on center) or as indicated an/or as required to meet standard.

J. Align stud web openings horizontally.

K. All new walls/furring to be framed around ductwork penetrations. See drawings for location and sizes of ductwork.

L. Secure studs to tracks using fastener method. Do not weld.

M. Stud splicing is not permissible.

N. Fabricate corners using a minimum of three studs.

O. Install double studs at wall openings, door and window jambs, not more than 2 inches (50 mm) from each side of openings.

P. Brace stud framing system rigid. Anchor all walls properly to existing walls and structure with diagonal bracing, cross members, etc., for proper support.

Q. Coordinate erection of studs with requirements of door frames; install supports and attachments.

R. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.

S. Blocking: Use wood blocking secured to studs. Provide blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, and opening frames.

T. Furr out all walls where noted, installing members at 16" on center as required. Anchor to wall and to top and bottom runner channels.

3.03 CEILING AND SOFFIT FRAMING

A. Comply with requirements of ASTM C754.

B. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.

C. Install furring independent of walls, columns, and above-ceiling work.

D. Securely anchor hangers to structural members or embed them in structural slab. Space hangers as required to limit deflection to criteria indicated. Use rigid hangers at exterior soffits.

E. Space main carrying channels at maximum 72 inch (1 800 mm) on center, and not more than 6 inches (150 mm) from wall surfaces. Lap splice securely.

F. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.

G. Place furring channels perpendicular to carrying channels, not more than 2 inches (50 mm) from perimeter walls, and rigidly secure. Lap splices securely.

H. Reinforce openings in suspension system that interrupt main carrying channels or furring channels with lateral channel bracing. Extend bracing minimum 24 inches (600 mm) past each opening.

I. Laterally brace suspension system.

3.04 TOLERANCES

A. Maximum Variation From True Position: 1/8 inch in 10 feet (3 mm in 3 m).

B. Maximum Variation From Plumb: 1/8 inch in 10 feet (3 mm in 3 m).

END OF SECTION

SECTION 099000
PAINTING AND COATING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Interior painting and coating systems.

C. Exterior painting and coating systems.

D. Scope:
   1. This Contractor shall paint all exterior and interior building materials as required for a finished installation or as noted on drawings.
   2. Finish surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including but not limited to the following: .
      a. Interior walls and exposed drywall ceilings.
      b. Interior steel frames.
      c. New exposed gas piping (on roof and elsewhere).
      d. Interior and Exterior Electrical items not factory finished or as called out to be painted such as meter, electric disconnect/conduits/meter socket, etc. All new wire mold.
      e. Fire Alarm Replacement - new device/junction boxes, cover plates, conduits, wire mold. Any surface exposed after work is completed, that was not exposed prior to work.
      f. Miscellaneous items as required for a finished installation.
      g. Patch Paint - any surface that was not exposed prior to this work and becomes exposed as a result of this work.
      h. Items as called out in drawings.
   3. Contractor shall acquaint himself with all divisions of the specifications and drawings, as he shall paint or finish to completion all materials requiring painting or finishing which are left un-finished.

1.02 RELATED REQUIREMENTS

A. Section 016000 - Product Requirements

B. Section 017000 - Execution and Closeout Requirements

1.03 REFERENCE STANDARDS

A. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).

B. SSPC-SP 2 - Hand Tool Cleaning; 2024.

C. SSPC-SP 6 - Commercial Blast Cleaning; 2007.

D. SSPC-SP 13 - Surface Preparation of Concrete; 1997 (Reaffirmed 2003).

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Product characteristics.
   2. Surface preparation instructions and recommendations.
   3. Primer requirements and finish specification.
   4. Storage and handling requirements and recommendations.
   5. Application methods.
   6. Clean-up information.

C. Samples: Submit four paper draw down samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.

D. Applicator's qualification statement.

E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 016000 - Product Requirements for additional provisions.
   2. Extra Paint and Finish Materials: 1 gallon (4 L) of each color; from the same product run, store where directed.
   3. Label each container with color in addition to manufacturer's label.

1.05 QUALITY ASSURANCE

A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience and approved by manufacturer.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, product name, product code, color designation, VOC content, batch date, environmental handling, surface preparation, application, and use instructions.

C. Paint Materials: Store at a minimum of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

D. Handling: Maintain a clean, dry storage area to prevent contamination or damage to materials.

1.07 FIELD CONDITIONS

A. Do not apply materials when environmental conditions are outside the ranges required by manufacturer.

B. Follow manufacturer's recommended procedures for producing the best results, including testing substrates, moisture in substrates, and humidity and temperature limitations.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design Products: Subject to compliance with requirements, provide Sherwin-Williams Company (The) products indicated; www.sherwin-williams.com/#sle.

B. Comparable Products: Products of approved manufacturers will be considered in accordance with 016000 - Product Requirements, and the following:
   1. Other Acceptable Manufacturers:

2.02 PAINTINGS AND COATINGS

A. General:
   1. Provide factory-mixed coatings unless otherwise indicated.
   2. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application.
   3. Do not reduce, thin, or dilute coatings or add materials to coatings unless specifically indicated in manufacturer's instructions.

B. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

2.03 PAINT SYSTEMS - EXTERIOR

A. Exterior Ferrous Metal - Paint

   1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)

   2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

B. Exterior Galvanized Metal – Paint

   1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)

   2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

2.04 PAINT SYSTEMS - INTERIOR

A. Interior Drywall – Paint Latex
   1 Coat: SW ProMar 200 Zero VOC Interior Latex Primer, B28 Series (4 mil wet, 1.0 mil dry)
   2 Coats: SW ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series (4 mil wet, 1.5 mil dry)

B. Interior Wood - Paint
   1 Coat: SW Prep Premium Wall and Wood Interior Latex Primer, B28 Series (4 mil wet, 1.6 mil dry)
   2 Coats: SW ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series (4 mil wet, 1.5 mil dry)

C. Interior Concrete Block/Brick - Epoxy
   1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
   2 Coats: SW Pro Industrial Waterbased Catalyzed Epoxy Eg-shel, B73 Series (5.0-12.0 mil wet, 2.0-5.0 mil dry)

D. Interior Concrete Block/Brick - Paint
   1 Coat: SW Pro Industrial Heavy-Duty Block Filler, B42 Series (16.0-21.0 mil wet, 8.0-10.5 mil dry)
   2 Coats: SW ProMar 200 Zero VOC Interior Latex Semi-Gloss, B31 Series (4 mil wet, 1.5 mil dry)

E. Interior Ferrous Metal – Paint
   1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
   2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

F. Interior Galvanized Metal – Paint
   1 Coat: SW Pro Industrial Pro Cryl Universal Primer, B66 Series (5-10 mil wet, 1.8-3.6 mil dry)
   2 Coats: SW Pro Industrial Acrylic Semi-Gloss, B66 Series (6-12 mil wet, 2.1-4.2 mil dry)

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION

A. General - Before painting, remove hardware, accessories, plates, lighting fixtures, fire alarm devices, and other similar items, or provide ample protection of such items. Remove any clear covers or other items where the painted surface can be seen at completion. Upon completion of each space, replace above items. Use only skilled mechanics for removing and connection of above items.

B. Clean surfaces thoroughly and correct defects prior to application.

C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

D. Remove mildew from impervious surfaces by scrubbing with solution of water and bleach. Rinse with clean water and allow surface to dry.

E. All hairline cracks, splits, gouges, scratches and alligatored surfaces shall be spackled with Durabond 90, following manufacturer's recommendations. Prime these areas with a heavy-

duty primer similar to Sherwin Williams Prep Rite High Build Latex Primer, B28W601 (1-4 Mills Dry).

F. Roughen up and clean all surfaces as required by manufacturer for proper bonding of product used to the material/surface being prepped.

G. Concrete:
   1. Remove release agents, curing compounds, efflorescence, and chalk.
   2. Fill bug holes, air pockets, and other voids with cement patching compound.
   3. Prepare concrete according to SSPC-SP 13.

H. Masonry: Remove efflorescence and chalk.

I. Gypsum Board: Fill minor defects with filler compound; sand smooth and remove dust prior to painting.

J. Plaster: Fill hairline cracks, small holes, and imperfections with patching plaster. Make smooth and flush with adjacent surfaces. Treat textured, soft, porous, or powdery surfaces in accordance with manufacturer's instructions.

K. Aluminum: Remove surface contamination and oil; wash with solvent according to SSPC-SP 1.

L. Galvanized Surfaces:
   1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
   2. Prepare surface according to SSPC-SP 2.

M. Ferrous Metal:
   1. Solvent clean according to SSPC-SP 1.
   2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
   3. Remove rust, loose mill scale, and other foreign substances using methods recommended by paint manufacturer and blast cleaning according to SSPC-SP 6. Protect from corrosion until coated.

N. Wood: Remove dust, grit, and foreign matter. Scrape, sand, and spot prime knots and pitch streaks. Fill nail holes and imperfections with wood filler and sand smooth.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. All paint shall be installed in strict conformance with manufacturer's specifications. Surface to be painted shall be clean, dry, smooth and adequately protected from weather. Temperature shall be above 50 degrees F.

C. Finished work shall be uniform, of approved color, smooth and free from runs, sags, defective brushing, clogging, or excessive flooding.

D. Small cracks, holes and other imperfections in masonry surfaces, which show up after primer-sealer has been applied to the surface shall be filled with an approved spackling compound before application of second coat.

E. Paint or finish all work specified herein and all work customarily painted for appearance or protection, as well as other specified items of work scheduled to be painted in room finish schedule.

F. Apply coatings at spread rate required to achieve manufacturer's recommended dry film thickness.

G. Regardless of number of coats specified, apply additional coats until complete uniform color, hide, and sheen is achieved.

H. Fire Alarm / PA System Replacement - any surface that is exposed after work is completed, that was not exposed prior to work, is to be patch painted to color blend into the primary adjacent surface. All wire mold or exposed conduit to be painted to match surface it is mounted

to. New and existing cover plates and device/junction boxes exposed to view as part of this work to be painted the color of surface mounted to.

I. Marking and identification of Fire and Smoke barriers, partitions, and walls:
   1. Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with stenciling in the concealed space. Such identification shall:
      a. Be located within 15 feet (4572 mm) of the end of each wall and at intervals not exceeding 30 feet (9144 mm) measured horizontally along the wall or partition.
      b. Include lettering not less than 3 inches (76 mm) in height with a minimum 3/8-inch (9.5 mm) stroke in a contrasting color incorporating the suggested wording, “FIRE AND/OR SMOKE BARRIER—PROTECT ALL OPENINGS,” or other wording.
   2. Included are both sides of all barriers, partitions, and walls within the contract limits and/or as indicated on the drawings.

J. All patch painting shall be done in neat logical configurations, stopping at logical break points, such as inside or outside corners, at change of materials, or as directed by the Owner/Architect.

3.04 PRIMING

A. Apply primer to all surfaces unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.

B. Primers specified in painting schedules may be omitted on items factory primed or factory finished items if acceptable to top coat manufacturers.

3.05 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

B. Clean surfaces immediately of overspray, splatter, and excess material.

C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

3.06 PROTECTION

A. Protect finished coatings from damage until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION