



**Fire Alarm Updates for
Bay-Arenac ISD**
Bay City, Michigan

PROJECT NO. 2435-F
March 26, 2025

TSSF ARCHITECTS, INC.

ARCHITECTS

122 N. WASHINGTON AVENUE

PLANNERS

SAGINAW , MICHIGAN

DOCUMENT 00010

TABLE OF CONTENTS

**BAY-ARENAC ISD
FIRE ALARM UPGRADE**

DIVISION 0 - DOCUMENTS

Section	00010	Table of Contents
	00030	Advertisement for Bid
	00100	Instructions to Bidders
	00150	Supplementary Instructions to Bidders
	00300	Proposal Form
	00500	Agreement Between Owner-Contractor
	00610	Performance, Labor, and Material Bonds
	00650	Insurance Requirements
	00800	Drawing Index

DIVISION 1 - GENERAL REQUIREMENTS

Section	01001	Basic Requirements
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END OF DOCUMENT

SECTION 00030
ADVERTISEMENT FOR BID

Sealed proposals will be received for the Bay Arenac – ISD Career Center – Fire Alarm Upgrades, located in Bay City, Michigan.

Bids are to be addressed to **Ken Kerr, Building Operations Supervisor, and will be received until 1:00 p.m. local time on April 15, 2025.**

Bay-Arenac ISD
Career Center
4155 Monitor Road
Bay City, MI 48706

at which time and place, the bids will be privately opened. A single combined proposal will be received for all the work of the trades.

Bidders will be given PDF files of Contract Documents. A mandatory pre-bid meeting has been scheduled for 9:00 a.m., Thursday, April 10, 2025.

The following is a list of invited general contractors:

A bid-bond or certified check in the amount of 5% shall accompany the proposal.

A performance bond and labor and material payment bonds, as described in the Instructions to Bidders are required in the amounts as detailed in Section 00610 – Performance Bond, Labor and Material Bond.

The bid documents, including plans and specifications, are on file at the following locations:

ARCHITECT'S OFFICE

TSSF Architects, Inc.
122 N. Washington Avenue
Saginaw, MI 488607
(989) 752-7311

The Owner reserves the right to reject any or all bids, to waive irregularities and/or informalities and to make an award in any manner deemed in their best interest. Proposals shall be made on the forms provided as part of the Bidding Documents. Failure to use the provided form will result in a bid rejection.

All other requirements for bidding are detailed in the Instructions to Bidders.

Signed,

Ken Kerr
Building Operations Supervisor

END OF SECTION

Page 1 of 1

00030
#2435

SECTION 00100
INSTRUCTIONS TO BIDDERS

PART 1 – GENERAL

1.1 Refer to AIA Document A701, 2007 Edition, on file at the office of the Architect.

1.2 RELATED SECTIONS

- A. Section 00030 - Invitation to Bid
- B. Section 00150 - Supplementary Instructions to Bidders
- C. Section 00300 - Proposal Form

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 00150

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

PART I GENERAL

1.1 INTRODUCTION

The following supplements modify, change, delete from or add to the instructions to Bidders, AIA Document A701, 2017 Edition. Where any Article of the Instructions to Bidders is modified or any paragraph, subparagraph or clause thereof is modified by these supplements, the unaltered provisions of that Article, paragraph, subparagraph, or clause shall remain in effect.

1.2 BIDDING

- A. Bids are to be addressed to and will be received at the place, until the time, and in the manner indicated in the Advertisement for Bids. Proposals received after the time specified will be returned unopened.
- B. Bids shall be submitted as stated on proposal forms furnished by the Architect and shall be completely executed in strict accordance with the bid documents. No telephonic bids will be accepted.
- C. Prior to the execution of the contract, the successful Trades Contractor shall furnish a certificate of insurance covering their own work.
- D. Interpretation of plans and specifications: Any person contemplating submittal of a bid for the proposed contract who is in doubt about the true meaning of any part of the plans and/or specifications must submit an interpretation request to the Architect, structural, mechanical or electrical engineers designed. It is intended that any item of work or material shown on plans or listed in specifications shall be the responsibility of the respective contractors to provide and install, with the exception of specific items indicated to be provided by one contractor and installed by a different contractor. Questions regarding responsibility shall be clarified prior to bid date.
- E. All bidders are expected to respond to any alternate listed on the proposal form. Bidders are also advised that only those alternates listed on the proposal form will be accepted for consideration in determining the low bidder, and that bidder-originated alternates will not be considered at this time. In general, the order in which alternates are listed on the proposal form is the order in which they will be evaluated for acceptance.
- F. Any addenda issued prior to receipt of bids are to be included in the proposal and will become part of the contract. Bidders must acknowledge on bid form all addenda received. Failure of a bidder to receive any addendum shall not release the bidder from any obligations under his bid, provided said addendum was sent by U.S. mail or United Parcel Service to the address furnished by the bidder.
- G. Sales Tax: The state sales tax in the State of Michigan is applicable to the construction of this project.
- H. Bidders will note that any salvage from operations under this contract shall belong to the Owner, with the Owner having discretion as to retention of any or all salvage material. It shall be the responsibility of the respective contractors to remove and dispose of off-site, as they see fit, any salvage not desired by the Owner. Contractors and subcontractors shall

check with Owner or Architect for allocation of any salvage items.

- I. The Owner reserves the right to accept or reject any or all proposals or to waive any informalities therein.
- J. The Owner will evaluate proposals and make an award within 30 days of bid due date, during which time bids may not be withdrawn by bidders.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 00300

PROPOSAL FORM

Date _____

Name of Bidder _____

Bid Category: _____

TO: TSSF Architects, Inc.
122 N. Washington Avenue
Saginaw, MI 48603

PROPOSAL FOR: Fire Alarm Upgrade
Bay-Arenac ISD Career Center

1. BASE BID/ADDENDA

The undersigned has carefully examined the bidding and contract documents, including the Instructions to Bidders, Agreement Between Owner and Contractor, General Conditions, Supplementary Conditions, Contract Requirements, General Requirements, Specifications, Drawings, and any and all Addenda issued, and has familiarized himself with all local conditions to be encountered affecting the cost of the work and does hereby propose to perform all work and to furnish all of the labor, materials, tools, equipment and services necessary to complete the contract in connection with the above project, all in accordance with the contract documents prepared by TSSF Architects, including the following addenda.....

Addendum No. _____, Dated _____

Addendum No. _____, Dated _____

Addendum No. _____, Dated _____

for the following BASE BID AMOUNT:

(Bid Category)

Dollars

(Bid in words)

\$ _____

(Bid in figures)

2. STARTING and COMPLETION DATES: The undersigned agrees, if awarded the contract, that they will commence the work within ten (10) days after the Owner gives the Bidder notice to commence the work.

3. FEES FOR ADDITIONAL WORK – TO BE COMPLETED BY THE BIDDER:

For additional work performed upon instructions of the Owner by work forces of the undersigned, the charges shall be the actual cost of all labor and materials (less all discounts) plus a fee of 10 percent, which includes all charges of the undersigned for overhead, profit, etc.

4. ADDRESS, LEGAL STATUS and SIGNATURE OF BIDDER

The undersigned bidder does hereby designate the information given below as the legal name and address to which all notices, directions, or other communications may be served or mailed.

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE NUMBER: (_____) _____ FAX NUMBER: (_____) _____

The undersigned bidder does hereby declare that the bidder has the legal status checked below:

_____ Individual

_____ Co-partnership

_____ Corporation incorporated under the laws of the State of _____

If a Corporation,
affix corporate seal here

Date: _____

Signed: _____

Note: If Bid Form is signed by an Agent, attach a certified Power of Attorney

NOTE: Submit two (2) original copies of this proposal unless otherwise instructed.

SECTION 00500

AGREEMENT BETWEEN OWNER AND CONTRACTOR

PART 1 GENERAL

1.1 AGREEMENT FORM

- A. Agreement between Owner and Contractor will be AIA Document A101, Standard Form of Agreement between Owner and Contractor, 2017 Edition.

1.2 RELATED SECTIONS

- A. Section 00650 - Insurance Requirements
- B. Section 00700 - General Conditions of the Contract

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 00610

PERFORMANCE, LABOR, AND MATERIAL BONDS

PART 1 GENERAL

1.1 BONDS REQUIRED

- A. The successful Contractor, shall within fifteen (15) days after acceptance of his proposal, furnish a Performance Bond, in an amount equal to one hundred percent (100%) of the contract sum as security for the faithful performance of this contract and also a Labor and Material Payment Bond in an amount not less than one hundred percent (100%) of the contract sum as security for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract.
- B. Cost of said bonds shall be included as a part of the Base Bid.
- C. The Contractor shall obtain such bonds in a manner consistent with Michigan law.
- D. Bonds signed by Attorney-In-Fact must be accompanied by a certified and effectively dated copy of their Power of Attorney.

1.2 RELATED SECTIONS

- A. Section 00500 - Agreement Between Owner and Contractor
- B. Section 00700 - General Conditions of the Contract

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 00650

INSURANCE REQUIREMENTS

PART 1 GENERAL

1.1 INSURANCE REQUIREMENTS

- A. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the work. Certificates shall contain a provision that coverages afforded under the policies will not be modified or canceled until at least 30 days prior written notice has been given to the Owner. Submit two copies of each certificate to the Architect. Furnish a to the Architect copies of any endorsements that are subsequently issued amending coverage or limits.
- B. All insurance shall be carried with companies which are financially responsible. If any such insurance is due to expire during the term of the Contract, the Contractor shall not permit the coverage to lapse and shall furnish evidence of continuing coverage to the Architect/Owner.
- C. Workmen's Compensation: As required by all applicable Federal and State laws, including Employer's Liability with a limit of at least \$100,000.00.
- D. Comprehensive General Liability: Including Contractor's Liability, Contingent Liability, Contractual Liability, Elevator Liability, Products including Completed Operations, all on occurrence basis with Personal Injury Coverage and Broad Form Property Damage. Including CCU related to Explosion, Collapse and Underground Property Damage. Products, including Completed Operations Liability shall be kept in force for at least 2 years after date of final completion.
- E. Contractor's Liability Insurance, including Contractual Liability (Comprehensive General Liability Form):
- F. FCU to be named as Additional Insured on certificate provided.

Minimum Coverage

Bodily Injury:

Each Occurrence	\$1,000,000.00
Aggregate	\$2,000,000.00

Property Damage:

Each Accident	\$1,000,000.00
Aggregate	\$2,000,000.00
Fire Damage	\$ 50,000.00
Medical Expenses	\$ 5,000.00

- G. Comprehensive Automobile Liability: including non-ownership and hired car coverage as well as vehicles.

Minimum Coverage

- | | | |
|----|---|----------------|
| | Bodily Injury and Death: | |
| | Each Person | \$1,000,000.00 |
| | Each Occurrence | \$1,000,000.00 |
| | Property Damage: | |
| | Each Occurrence | \$1,000,000.00 |
| H | Umbrella Liability | |
| | Each Occurrence | \$2,000,000.00 |
| | Aggregate | \$2,000,000.00 |
| I | Worker's Compensation and Employer's Liability | |
| | Each Accident | \$100,000.00 |
| | Disease - Policy Limit | \$500,000.00 |
| | Disease - Each Employee | \$100,000.00 |
| J | Contractor's insurance shall include coverage for liability assumed by Contractor under General Conditions A201, Paragraph 4.18, indemnification of General Conditions. | |
| K. | The Contractor shall furnish Owner with Certificates of Insurance showing by specific reference that each of the foregoing items has been provided. Furnish three copies of Certificate of Insurance, using AIA Document G705. | |
| L. | Owner's Insurance: The Owner shall carry fire, extended coverage, hydrostatic coverage, vandalism and malicious mischief insurance in the "completed value" form in an amount equal to full insurable value of the work including theft. Owner's insurance to be broad form Builder's Risk, naming Owner and all prime contractors as additional insured. | |

1.2 RELATED SECTIONS

- A. Section 00500 - Agreement Between Owner and Contractor
- B. Section 00700 - General Conditions of the Contract
- C. Section 00750 - Supplementary Conditions

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 00800
DRAWING INDEX

COVER TITLE SHEET, DRAWING INDEX, ABBREVIATIONS

ARCHITECTURAL

A0.1 SECOND AND FIRST FLOOR REFERENCE PLANS

ELECTRICAL

F0.0 SPECIFICATION FIRE DETECTION AND ALARM
F1.0 FIRE ALARM FIRST FLOOR PLAN

END OF SECTION

SECTION 01001

BASIC REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Summary:
 - 1. Contract description.
 - 2. Work by Owner.
 - 3. Contractor's use of premises.
 - 4. Specification conventions.
- B. Price and Payment Procedures:
 - 1. Testing and inspection allowances.
 - 2. Schedule of values.
 - 3. Applications for payment.
 - 4. Change procedures.
- C. Administrative Requirements:
 - 1. Coordination.
 - 2. Field engineering.
 - 3. Meetings.
 - 4. Equipment electrical characteristics and components.
 - 5. Cutting and patching.
- D. Submittals:
 - 1. Submittal procedures.
 - 2. Construction progress schedules.
 - 3. Proposed products list.
 - 4. Product data.
 - 5. Shop drawings.
 - 6. Samples.
 - 7. Manufacturer's instructions.
 - 8. Manufacturer's certificates.
- E. Quality Requirements:
 - 1. Quality control.
 - 2. Tolerance.
 - 3. References.
 - 4. Labeling.
 - 5. Testing and inspection laboratory services.
 - 6. Manufacturer's field services and reports.
 - 7. Examination.
 - 8. Preparation.
- F. Temporary Facilities and Controls:
 - 1. Temporary electricity.
 - 2. Temporary lighting for construction purposes.
 - 3. Temporary heating and cooling.
 - 4. Temporary ventilation.
 - 5. Telephone and facsimile service.
 - 6. Temporary water service.

7. Temporary sanitary facilities.
8. Field offices and sheds.
9. Access roads.
10. Parking.
11. Progress cleaning and waste removal.
12. Project identification.
13. Fire prevention facilities.
14. Barriers and fencing.
15. Enclosures.
16. Protection of installed work.
17. Security.
18. Water control.
19. Pollution and environmental control.
20. Removal of utilities, facilities, and controls.

- G. Product Requirements:
1. Products.
 2. Delivery, handling, storage, and protection.
 3. Product options.
 4. Substitutions.

- H. Execution Requirements:
1. Closeout procedures.
 2. Final cleaning.
 3. Starting of systems.
 4. Demonstration and instructions.
 5. Testing, adjusting, and balancing.
 6. Protecting installed construction.
 7. Project record documents.
 8. Operation and maintenance data.
 9. Spare parts and maintenance materials.
 10. Warranties.

1.2 CONTRACT DESCRIPTION

- A. Perform Work of Contract under a stipulated sum contract with Owner in accordance with Conditions of Contract.

1.3 WORK BY OWNER

- A. Owner will award contracts for supply and installation of security, audio/visual, which will commence during the execution of this contract.
- B. Items noted as NIC (Not in Contract), movable cabinets, furnishings and minor equipment will be furnished and installed by Owner after Substantial Completion.

1.4 CONTRACTOR'S USE OF PREMISES

- A. Limit use of premises to allow:
1. Work by others and work by Owner.

1.5 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor, unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences

1.6 CONTINGENCY ALLOWANCE

- A. Include in the contract, \$10,000 for use upon architect/engineers' instruction.
- B. Contractor's costs for products, delivery installation, labor, insurance, payroll taxes, bonding equipment rental, overhead, and profit are included in change orders authorizing expenditure from this allowance.

1.7 SCHEDULE OF VALUES

- A. Submit schedule on AIA Form G703.
- B. Submit Schedule of Values in duplicate within 15 days after date established in Notice to Proceed.

1.8 APPLICATION FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702 and G703.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Monthly. Pay requests due on the 30th of every month, payment to go out by 21ST of the month following.

1.09 CHANGE PROCEDURES

- A. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation.
- B. Change Order Forms AIA G701.

1.10 COORDINATION

- C. Coordinate scheduling, submittals, and Work of various sections of specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
- D. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- E. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable.
- F. In finished areas, conceal pipes, ducts, and wiring within construction.

1.11 FIELD ENGINEERING

- A. Employ experienced instrument technician to locate reference datum and protect survey control and reference points.
- B. Establish elevations, lines, and levels and certify elevations and locations of the Work conform with Contract Documents.
- C. Verify field measurements are as indicated on shop drawings or as instructed by manufacturer.

1.12 PRECONSTRUCTION, SITE MOBILIZATION AND PREINSTALLATION MEETINGS

- A. Contractor shall schedule preconstruction and site mobilization meeting after Notice of Award for affected parties.
- B. When required in individual specification section, convene preinstallation meeting at Project site prior to commencing work of section.

1.13 PROGRESS MEETINGS

- A. Contractor shall schedule and administer meetings throughout progress of the Work at maximum bi-monthly intervals.
- B. Contractor shall preside at meetings, record minutes, and distribute copies within two days to those affected by decisions made.

1.14 EQUIPMENT ELECTRICAL CHARACTERISTICS AND COMPONENTS

- A. Motors: NEMA MG1 Type; specific motor type is specified in individual specification sections.
- B. Wiring Terminations: Terminal lugs to match branch circuit conductor; size terminal lugs to NFPA 70.
- C. Cord and Plug: Minimum 6-foot cord and plug including grounding connector; cord of longer length is specified in individual sections.

1.15 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching new Work; restore Work with new Products.
- B. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
 - 1. Fit several parts together, to integrate with other Work.
 - 2. Uncover Work to install or correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

- C. Cut masonry and concrete materials using masonry saw or core drill. Restore Work with new Products in accordance with requirements of Contract Documents.

Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction, completely seal voids.
- D. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- E. Refinish surfaces to match adjacent finishes.

1.16 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, subcontractor or supplier; and pertinent Contract Document references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- C. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of completed Work.
- D. Revise and resubmit submittals as required; identify changes made since previous submittal.

1.17 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major Products proposed for use, with name of manufacturer, trade name, and model number of each product.

1.18 PRODUCT DATA

- A. Product Data:
 - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- B. Submit number of copies which Contractor requires, plus two copies which will be retained by Architect/Engineer.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project.

1.19 SHOP DRAWINGS

- A. Shop Drawings:
 - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.

- B. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- C. Submit number of opaque reproductions Contractor requires, plus two copies which will be retained by Architect/Engineer.

1.20 SAMPLES

- A. Samples for Review:
 - 1. Submitted to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
 - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- B. Samples for Selection:
 - 1. Submitted to Architect/Engineer for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Architect/Engineer selection.
 - 3. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents purposes as specified.
- C. Submit samples to illustrate functional and aesthetic characteristics of Product.
- D. Submit samples of finishes from full range of manufacturer's standard colors, textures, and patterns for Architect/Engineer's selection.

1.21 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturer printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.22 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit certifications by manufacturer to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.23 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer's instructions.

- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.24 TOLERANCES

- A. Monitor fabrication and installation tolerance control of installed Products over suppliers, manufacturers, Products, site conditions, and workmanship, to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply fully with manufacturer's tolerances.

1.25 REFERENCES

- A. Conform to reference standards by date of issue current as of date of Contract Documents.
- B. When specified reference standard conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

1.26 LABELING

- A. Attach label from agency approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label.
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.
 - 4. Mock-ups.

1.27 MANUFACTURER'S FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to furnish qualified staff personnel to observe site conditions and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions that are supplemental or contrary to manufacturer's written instructions.

1.28 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify utility services are available, of correct characteristics, and in correct location.

1.29 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

1.30 TEMPORARY ELECTRICITY

- A. Pay cost of electricity used.
- B. Provide temporary electricity and power outlets for construction operations, connections, branch wiring, distribution boxes, and flexible power cords as required. Do not disrupt Owner's need for continuous service.

1.31 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Permanent building lighting may be utilized during construction. Repair, clean, and replace lamps at end of construction.

1.32 TEMPORARY HEATING AND COOLING

- A. Permanent building heating and cooling may be utilized during construction.

1.33 TELEPHONE AND INTERNET SERVICE

- A. Provide, maintain, and pay for telephone service to field office at time of project mobilization. Allow Architect/Engineer incidental use.

1.34 TEMPORARY WATER SERVICE

- A. Connect to existing water source for construction operations.

1.35 TEMPORARY SANITARY FACILITIES

- A. New existing facilities be used.

1.36 ACCESS ROADS

- A. On-site roads may be used for construction traffic.

1.37 PARKING

- A. Existing on-site areas may be utilized during construction.

1.38 PROGRESS CLEANING AND WASTE REMOVAL

- A. Collect and maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

1.39 FIRE PREVENTION FACILITIES

- A. Prohibit smoking within buildings under construction. Designate area on site where smoking is permitted.
- B. Establish fire watch for cutting and welding and other hazardous operations capable of starting fires. Maintain fire watch before, during, and after hazardous operations until threat of fire does not exist.
- C. Portable Fire Extinguishers: NFPA 10; 10-pound capacity, 4A-60B: C UL rating.
 - 1. Provide one fire extinguisher at each stair on each floor of buildings under construction.

2. Provide minimum one fire extinguisher in every construction trailer and storage shed.
3. Provide a minimum of one fire extinguisher on roof during roofing operations using heat producing equipment.

1.40 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Prohibit traffic or storage upon waterproofed or roofed surfaces.

1.41 SECURITY

- A. Provide security and facilities to protect Work and Owner's operations from unauthorized entry, vandalism, or theft.

1.42 POLLUTION AND ENVIRONMENTAL CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Provide dust control, erosion and sediment control, noise control, pest control and rodent control to allow for proper execution of the Work.
- C. Comply with pollution and environmental control requirements.

1.43 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion review.
- B. Remove underground installations to minimum depth of 2 feet.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to their original condition. Restore permanent facilities used during construction to specified condition.

1.44 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Provide interchangeable components of same manufacture for components being replaced.

1.45 DELIVERY, HANDLING, STORAGE, AND PROTECTION

- A. Deliver, handle, store, and protect Products in accordance with manufacturer's instructions.

1.46 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for manufacturers not named.

1.47 SUBSTITUTIONS

- A. Substitutions will only be considered when the Product becomes unavailable through no fault of Contractor.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.

1.48 CLOSEOUT PROCEDURES

- A. Submit written certification Contract Documents have been reviewed, Work has been inspected, and Work is complete in accordance with Contract Documents and ready for Architect/Engineer's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum/Price, previous payments, and amount remaining due.

1.49 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view. Vacuum carpeted and soft surfaces.
- C. Clean debris from site, roofs, gutters, downspouts, and drainage systems.
- D. Replace filters of operating equipment.
- E. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.50 STARTING OF SYSTEMS

- A. Provide seven days notification prior to start-up of each item.
- B. Ensure each piece of equipment or system is ready for operation.

- C. Execute start-up under supervision of responsible persons in accordance with manufacturer's instructions.
- D. Submit written report stating equipment or system has been properly installed and is functioning correctly.

1.51 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of final review.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.

1.52 TESTING, ADJUSTING, AND BALANCING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.
- B. Mechanical Contractor will follow mechanical engineers list of approved Testing and balance companies and appoint and employ services of independent firm to perform testing, adjusting, and balancing.
- C. Reports will be submitted by independent firm to Architect/Engineer indicating observations and results of tests and indicating compliance or non-compliance with specified requirements and with requirements of Contract Documents.
- D. Cooperate with independent firm; furnish assistance as requested.
- E. Re-testing required because of non-conformance to specified requirements will be charged to Contractor.

1.53 PROTECTING INSTALLED CONSTRUCTION

- A. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- B. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- C. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- D. Prohibit traffic from landscaped areas.

1.54 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of Contract Documents to be utilized for record documents.
- B. Record actual revisions to the Work. Record information concurrent with construction progress.

- C. Specifications: Legibly mark and record at each Product section description of actual Products installed.
- D. Record Documents and Shop Drawings: Legibly mark each item to record actual construction.
- E. Submit documents to Architect/Engineer with claim for final Application for Payment.

1.55 OPERATION AND MAINTENANCE DATA

- A. Submit two sets prior to final inspection, bound in 8-1/2 x 11-inch text pages, three D side ring capacity expansion binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" and title of project.
- C. Internally subdivide binder contents with permanent page dividers, logically organized, with tab titles legibly printed under reinforced laminated plastic tabs.
- D. Contents:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system.
 - 3. Part 3: Project documents and certificates.

1.56 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by Owner; obtain receipt prior to final payment.

1.57 WARRANTIES

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.
- C. Submit prior to final Application for Payment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION