

**SECTION 00 0101
PROJECT TITLE PAGE**

**PROJECT MANUAL
FOR
SEPCSD - 2024 ROOFING REPLACEMENTS**

OWNER:

Southeast Polk Community School District
407 8th Street SE
Altoona IA 50009

ARCHITECT/ENGINEER:

Shive-Hattery, Inc.
4125 Westown Parkway, Suite 100
West Des Moines, IA 50266

BIDS DUE:

February 22, 2024
2:00 PM
407 8th Street SE
Altoona IA 50009

NON-MANDATORY PREBID MEETING:

February 14, 2024
9:00 AM
7945 N E University Ave
Pleasant Hill, IA 50327

ISSUED FOR:

Issued for 95% CD Review: January 26, 2024

END OF SECTION

SECTION 00 0105
CERTIFICATIONS PAGE

THIS PROJECT IS LOCATED IN THE STATE OF IOWA

	I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly Licensed Architect under the laws of the State of Iowa.	
	Printed or typed name: Phillip J. Parrott	
	Signature _____ License Expires: 6/30/2025 Pages, Sheets, or Divisions covered by this Seal: Project Manual	Date _____

END OF SECTION

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END OF SECTION

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**SECTION 00 1113
ADVERTISEMENT FOR BIDS**

PROJECT: 2024 ROOFING IMPROVEMENTS

High School - 7945 NE University Avenue, Pleasant Hill, IA 50327

BIDS DUE: February 22, 2024 at 2:00 PM

TO:

Southeast Polk Community School District (**HEREINAFTER REFERRED TO AS Owner**):

Southeast Polk Community School District
407 8th Street SE
Altoona IA 50009

Architect (hereinafter referred to as Architect/Engineer):

Shive-Hattery, Inc.
4125 Westown Pkwy, Suite 100
West Des Moines, IA 50266

NON-MANDATORY PREBID MEETING: February 14, 2024

9:00 AM
Southeast Polk High School
7945 N E University Ave
Pleasant Hill, IA 50327

TO: POTENTIAL BIDDERS

Sealed bids will be received by the Owner at 407 8th Street SE until 2:00 PM, Central Time, on February 22, 2024.

Sealed bids will be opened and publicly read at the 407 8th Street SE at 2:00 PM, Central Time, on Thursday, February 22, 2024 or at such later time and place as may then be fixed.

Bids will be considered by the Owner at a public meeting to be held at 407 8th Street SE at 5:30 PM, Central Time, on Thursday March 7, 2024 or at such later time and place as may then be fixed.

The general nature of the work is as follows:

Project includes the removal and replacement of the roofs on Level M and Level R at the Southeast Polk High School and Level D at Altoona Elementary.

The work must commence on or about May 28, 2024 and must be substantially completed on August 2, 2023. The project must reach final completion no later than August 9, 2024.

Bidding documents may be examined at the Owner's office and online at www.actionrepro.com.

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Copies of the Bidding documents may be obtained by Bidders and Subbidders at Action Reprographics, 5037 NE 14th Street, Des Moines, IA, www.actionrepro.com, in accordance with the Instructions to Bidders upon depositing the sum of twenty-five dollars (\$25.00) for each set of documents. A Master Builders card may be presented in place of a deposit. The deposit will be refunded in full upon return of the documents in good condition within ten days after receipt of bids.

Each Bidder shall accompany the Bid with a Bid security, in a separate envelope, as security that the successful bidder will enter into a contract for the work bid upon and will furnish after the award of the contract corporate surety bond or bonds, acceptable to the Owner, for the faithful performance of the contract, in an amount equivalent to one hundred percent of the amount of the contract. The bidder's security shall be in an amount equivalent to 5% of the bid amount, and shall be in the form of a cashier's or certified check drawn on a bank in Iowa or a bank chartered under the laws of the United States of America, or a certified bank share draft drawn on a credit union in Iowa or chartered under the laws of the United States of America or a bid bond with corporate surety satisfactory to the Owner. The bid security will be held by the Owner until a contract is fully executed and bonds are approved by the Owner.

All Bidders are required to provide a statement regarding their residency status as required by 875 Iowa Administrative Code Chapter 156.

Contractors using "materials, supplies, and equipment" on projects in designated "exempt entities" may purchase these items without liability for the sales tax. The contractor must have a purchasing agent authorization letter and an exemption certificate from the public entity to present to the retailer, which specifies the construction project and will be available for that project only.

Owner will issue an authorization letter and an exemption certificate to the contractor and/or subcontractors for the purchase or use of building materials, supplies, and equipment to be used on this project only. DO NOT include sales tax on your bid form.

No bid may be withdrawn for a period of 30 days after the date of the scheduled closing time for the receipt of bids.

Bidders shall be prepared to submit a performance bond and payment bond conditioned on the faithful performance of the contract. Out-of-state bidders shall be prepared to submit an Out-of-State Contractor Bond to the Iowa Division of Labor in accordance with Chapter 91C of the Code of Iowa.

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa labor to the extent lawfully required under Iowa law.

It is the intent of the Owner to award a contract to the lowest responsible, responsive bidder provided the bid has been submitted in accordance with the bidding requirements. The Owner reserves the right to waive informalities or irregularities. The Owner reserves the right to reject any or all bids.

Published by order of the Southeast Polk School Board - Pleasant Hill, IA.

Publish: No later than February 09, 2024

Submit your offer on the Bid Form provided. Bidders may supplement this form as appropriate.

END OF SECTION

SEPCSD - 2024 Roofing Replacements
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**SECTION 00 1115
NOTICE OF PUBLIC HEARING**

2024 ROOFING REPLACEMENTS

SOUTHEAST POLK COUMMUNITY SCHOOL DISTRICT

To Whom It May Concern:

You are hereby notified that at 5:30 PM, Central Time on February 01, 2024, at 407 8th Street SE, Altoona IA 50009, there will be a public hearing on the proposed plans, specifications, form of contract, and estimated cost of the project. Any persons interested may appear and file objections to the proposed plans, specifications, form of contract, or cost of such improvement.

You can connect to our YouTube Channel to watch the meeting live or you may join our Zoom meeting as an Attendee. Attendees may submit public comments via the chat panel during the Public Comments section of the agenda. To dial in by phone, use on of the following phone numbers and enter the Webinar ID: 878 2190 1905

The YouTube Channel and Zoom link can be located here: <https://www.southeastpolk.org/district/board-of-education/online-board-meetings/>.

Phone #: 1-312-626-6799 or 1-929-205-6099 or 1-301-715-8592 or 1-346-248-7799 or 1-669-900-6833 or 1-253-215-8782

The following is a description of the Work: Project includes the removal and replacement of the roofs on Level M and Level R at the Southeast Polk High School and Level D at Altoona Elementary.

The locations of the project are as follows:

Southeast Polk High School
7945 N E University Ave
Pleasant Hill, IA 50327

Altoona Elementary School
301 6th St SW
Altoona, IA 50009

Proposed drawings and specifications may be examined by submitting a request to the Owner.

Published by order of the Southeast Polk School Board - Pleasant Hill, IA.

Publish: Between January 12, 2024 and January 28, 2024

END OF SECTION

**SECTION 00 2113
INSTRUCTIONS TO BIDDERS**

SUMMARY

AIA Document A701 Instructions to Bidders (2017 Edition), is the Instructions to Bidders and is hereby made a part of these Documents to the same extent as if bound herein. This form can be purchased from the American Institute of Architects State Office as follows:

AIA Iowa
400 Locust Street, Suite 100
Des Moines, IA 50309
Phone: 515-244-7502
Fax: 515-244-5347
www.aiaiowa.org

Refer to Document 00 2115 Supplementary Instructions to Bidders for additions and amendments to these Instructions to Bidders.

END OF SECTION

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**SECTION 00 2115
SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

THE FOLLOWING SUPPLEMENTS MODIFY, CHANGE, DELETE FROM OR ADD TO THE "INSTRUCTIONS TO BIDDERS", AMERICAN INSTITUTE OF ARCHITECTS (AIA) DOCUMENT A701 - 1997. WHERE ANY ARTICLE, PARAGRAPH, SUBPARAGRAPH OR CLAUSE OR PORTION THEREOF IS MODIFIED OR DELETED BY THESE SUPPLEMENTARY INSTRUCTIONS TO BIDDERS, THE UNALTERED PORTIONS OF THAT ARTICLE, PARAGRAPH, SUBPARAGRAPH OR CLAUSE OR PORTION THEREOF SHALL REMAIN IN EFFECT.

ARTICLE 1: DEFINITIONS

No Supplements

ARTICLE 2: BIDDER'S REPRESENTATIONS

Add the following Subparagraphs to Paragraph 2.1:

2.1.5 Work shall commence on or about May 28, 2024, and must be substantially completed by August 2, 2024. The project shall reach final completion no later than August 9, 2024.

2.1.6 The Bidder is fully experienced and properly qualified to perform the class of work provided for herein, and that it is properly licensed, equipped, organized and financed to perform such work. The Bidder shall act as an independent contractor and not as the agent of Owner in performing the Contract. The Bidder shall maintain complete control over its employees and all of its subcontractors. Nothing contained in this Contract or any subcontract awarded by Bidder shall create any contractual relationship between any such subcontractor and Owner. The Bidder shall perform all work in accordance with its own methods subject to compliance with the Contract and shall adhere to the schedule of progress and completion deadlines.

2.1.6.1 For Iowa public improvement projects, Chapter 26 of the Iowa Code prohibits a governmental entity (see Iowa Code 26.2 for definition of governmental entity) from imposing bidder prequalification requirements. Any contractor qualification paragraphs within individual specification sections should be considered criteria that may be used by the governmental entity during the bid award process to determine bidder responsibility or after bid award as requirements to perform the work, and should not be considered required qualifications to bid the project or requirements used by the governmental entity to determine bidder responsiveness.

2.1.7 The Bidder has included all work associated with the Contract Documents in their Bid, regardless of any direction given by or dictated by any Bid Depositories, other Agencies or Municipalities not specifically party to the Contract. The Bidder shall coordinate the scopes of work to be performed by themselves and their individual Subcontractors prior to bid sufficiently to ensure that all work associated with the Contract Documents, regardless of the Drawing or Specification Section in which they appear, are covered in the Bid.

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2.1.8 The Bidder has familiarized themselves with federal, state, and local laws, ordinances, rules and regulations affecting performance of the Work and employment of labor.

2.1.9 The Bidder has not participated in collusion or fraud in preparation of the bid for this project and shall provide a non-collusion affidavit to accompany the submitted bid.

Add the following Paragraph 2.2 and Subparagraphs 2.2.1 thru 2.2.3:

2.2. Preference

2.2.1 The State of Iowa, its agencies, and its political subdivisions, including cities, school districts and public utilities are required by Iowa Code Section 73A.21 to require a reciprocal resident bidder and resident labor force preference.

2.2.2 A "Resident Bidder" means a person or entity authorized to transact business in the State of Iowa and having a place of business for transacting business within the state at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. If another state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

2.2.3 A resident bidder shall be allowed a preference as against a nonresident bidder from a state or foreign country other than Iowa if that state or foreign country gives or requires any preference to bidders from that state or foreign country, including but not limited to any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident.

ARTICLE 3: BIDDING DOCUMENTS

Delete Subparagraph 3.1.1 and substitute the following Subparagraph 3.1.1:

3.1.1 Copies of the Bidding documents may be obtained by Bidders and Subbidders at Action Reprographics, 5037 NE 14th Street, Des Moines, IA, www.actionrepro.com, in accordance with the Instructions to Bidders upon depositing the sum of twenty-five dollars (\$25.00) for each set of documents. A Master Builders card may be presented in place of a deposit. The deposit will be refunded in full upon return of the documents in good condition within ten days after receipt of bids.

Add subparagraphs 3.2.1.1, 3.2.1.2 and 3.2.1.3 as follows:

3.2.1.1 If a discrepancy between different parts of the contract documents exists, the more stringent or higher cost requirement shall apply.

3.2.1.2 Bidders will not be entitled to any additional compensation or any extension of the Contract Time for conditions that can be determined by examining the site and the Bidding and Contract Documents.

3.2.1.3 Prior to bid, it is the responsibility of each bidder, sub-contractor, and material supplier to examine the documents for the work of all trades that may have an effect on the work that the bidder, sub-contractor, or supplier intends to perform.

Add subparagraphs 3.3.2.1 and 3.3.2.2 as follows:

3.3.2.1 Substitution requests must be submitted by prospective bidders on 00 4325 - Substitution Request Form. Substitution requests from manufacturers, distributors, or other entities that are not bidding as a general contractor will be rejected without review.

3.3.2.2 Approval of a substitution request does not in any way diminish the contractor's obligation to meet the specified requirements or the Architect's design intent.

Delete Subparagraph 3.4.3 and replace with the following:

3.4.3 Addenda will be issued in order to be received by all planholders of record not less than 48 Hours prior to the date and time that bids are due, except an addendum withdrawing the Request for Bids or one which includes postponement of the date for receipt of bids.

ARTICLE 4: BIDDING PROCEDURES

4.1 Preparation of Bids

Add the following Subparagraph 4.1.8

4.1.8 Items shall be purchased free of any sales tax, as provided for in Section 7 of House File 2672 amends Section 422.42, subsections 15 and 16, Code Supplement 2001 and Section 10 amends Section 422.47, Code Supplement 2001, by adding new subsection 5.

Add the following Subparagraph 4.1.9:

4.1.9 The Contractor shall take note and comply with all governing laws, rules, and regulations affecting the Work. This may include such laws, rules, and regulations as:

4.1.9.1. Licensing of Contractors for special requirements, e.g. hazardous waste removal.

4.1.9.2. Requirements for special construction permits.

4.1.9.3. Exemption from sales tax, if applicable.

4.1.9.4. Wage rates and employment requirements when required by law or by Owner.

4.1.9.5. Local labor requirements.

4.1.9.6. Non-discriminatory hiring practices.

4.2 Bid Security

Delete Subparagraph 4.2.1 and substitute the following Subparagraph:

4.2.1 Each Bidder shall accompany the bid with a bid security, in a separate envelope, as security that the successful Bidder will enter into a Contract for the work bid upon and will furnish after the award of the Contract, a corporate surety bond or bonds, acceptable to the Owner, for the faithful performance of the Contract, in an amount equivalent to 100% of the amount of the Contract. The Bidder's security shall be in an amount equivalent to 5% of the Bid Amount, and shall be in the form of a cashier's or certified check drawn on a bank in Iowa or a bank chartered under the laws of the United States, or a certified share draft drawn on a credit union in Iowa or chartered under the laws of the United States or a bid bond from a corporate surety satisfactory to the Owner. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Paragraph 6.2. Bid security of the successful bidder will be held by the Owner until an Agreement is fully executed and bonds are received and acceptable to the Owner.

4.3 Submission of Bids

Delete Subparagraph 4.3.1 and substitute the following Subparagraphs 4.3.1 and Subparagraph(s):

4.3.1 All copies of the Bid and other documents, not including the bid security, required to be submitted with the Bid, shall be enclosed in a sealed opaque envelope. The bid security, if any, shall be submitted in a separate sealed opaque envelope. Each envelope shall bear the return address of the bidder and shall be addressed as follows:

TO: Southeast Polk Community School District

Address: 407 8th Street SE, Altoona IA 50009

BID FOR: SEPCSD - 2024 Roofing Replacements

or as applicable:

BID SECURITY FOR: SEPCSD - 2024 Roofing Replacements

4.3.1.1 If the Bid, the bid security, if any, and other documents required to be submitted with the Bid are sent by mail, the sealed envelopes shall be enclosed in a separate mail envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

4.4 Modification or Withdrawal of Bid

Add Subparagraph 4.4.1.1 as follows:

4.4.1.1 The specific time period during which Bids may not be withdrawn shall be as stated on the Bid Form bound herein.

Add Article 4.5 Pre-Bid Conference as follows:

4.5 Pre-Bid Conference

4.4.5 The Advertisement for Bid includes notification of a non-mandatory pre-bid conference for the purpose of answering questions and providing information to prospective Bidders. The pre-bid conference will be held at 7945 N E University Ave, Pleasant Hill, IA 50327 on February 14, 2024 at 9:00 AM.

ARTICLE 5: CONSIDERATION OF BIDS

5.1 Opening of Bids

Paragraph 5.1 No Supplements

Delete subparagraph 5.3.1 and substitute the following subparagraph:

5.3.1 It is the intent of the Owner to award a contract or multiple contracts to the lowest responsible, responsive Bidder(s) provided the Bid(s) has/have been submitted in accordance with the requirements of the Bidding Documents and does/do not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid or Bids received and to accept the Bid(s) which, in the Owner's judgment, is/are in the Owner's best interests.

ARTICLE 6: POST-BID INFORMATION

Add Subparagraph 6.1.1 as follows:

6.1.1 Out-of-state-bidders shall furnish documentation prior to execution of the Agreement that confirms the Bidder is in compliance with Chapter 91C Construction Contractors and Chapter 490 Business Corporation Division XV Foreign Corporations of the Code of Iowa.

ARTICLE 7: PERFORMANCE BOND AND PAYMENT BOND

No Supplements.

ARTICLE 8: FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Add the following Paragraph 8.1 Execution of Agreement:

8.1 The selected Bidder shall, within ten (10) calendar days after receipt of Notice of Award, sign and deliver the required number of executed counterparts of the Agreement along with any required attached documents. Within ten (10) calendar days after receipt of executed documents from the selected Bidder, the Owner shall deliver one fully executed counterpart to the Contractor.

END OF SECTION

**SECTION 00 4000
PROCUREMENT FORMS AND SUPPLEMENTS**

PART 1 GENERAL

1.1 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in the procurement requirements.
- B. Instructions to Bidders: AIA A701-1997.
- C. Substitution Request Form (During Procurement): 00 4325 - Substitution Request Form.
- D. Substitution Request Form (During Construction): 00 6325 - Substitution Request Form - During Construction.
- E. Bid Form: Section 00 4100 - Bid Form.
- F. Procurement Form Supplements:
 - 1. Bid Security Form: AIA 310-2010 "Bid Bond".
- G. Representations and Certifications:
 - 1. Bidder Status Form: 00 4100.01.
 - 2. Authorization to Transact Business: 00 4100.02.
 - 3. Non-Collusion Affidavit: 00 4100.03.

1.2 REFERENCE STANDARDS

- A. AIA A310 - Bid Bond; 2010.
- B. AIA A701-1997 - Instructions to Bidders; 1997.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 00 4100
BID FORM**

PROJECT: SEPCSD - 2024 ROOFING REPLACEMENTS

BID TO:	Southeast Polk Community School District
	407 8th Street SE, Altoona IA 50009
DELIVER BID TO:	407 8th Street SE
	Altoona IA 50009

DATE: _____ (Bidder to enter date)

SUBMITTED BY: _____

(BIDDER TO ENTER NAME AND ADDRESS).

Bidder's Full Name _____

Address _____

City, State, Zip _____

Bidder's Email _____

NOTE: Submit one copy of this Bid Form. All blanks shall be completed. Only bids on this form will be accepted. Submit Bid Security, if required, in separate envelope. Bidder shall carefully review the Instructions to Bidders and Supplementary Instructions to Bidders prior to completing this form.

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the schedule indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents. Bidder accepts all of the terms and conditions of the Advertisement for Bids and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 30 days after the day of Bid opening.

2. The undersigned Bidder submits, herewith, bid security in accordance with the terms set forth in the Advertisement for Bids and Supplementary Instructions to Bidders.

3. The Bidder has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged:

<u>DATE</u>		<u>NUMBER</u>

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4. BIDDER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work.

5. BIDDER is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

6. BIDDER will complete the Work in accordance with the Contract Documents for the following bid price(s):

Lump Sum Bid Price:		\$	
	(use words)		

7. BIDDER agrees that the Work will be completed in accordance with the project schedule in the Advertisement for Bids.

8. BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

9. Bidder certifies that this proposal is made in good faith, without collusion or in connection with any other person, organization, or corporation bidding on the work.

10. The following documents are attached to and made a condition of this Bid:

a. Required Bid Security in the amount of _____ and in the form of _____ SUBMITTED IN A SEPARATE ENVELOPE.

b. 00 4100.01 - Bidder Status Form

c. 00 4100.03 - Non-Collusion Affidavit.

d. 00 4100.01 - Bidder Status Form and 00 4100.02 - Authorization to Transact Business Worksheet.

11. This Bid submitted on _____, 20____.

12. State Contractor License No. _____.

13. The bidder shall not make any revisions to the bid forms or the Schedule of Bid Prices and shall not devise any alternates other than those provided. Any such notes, revisions, or comments shall be grounds for rejection of the bid as not being responsive.

14. Complete the applicable item(s) listed below. If this Bid is submitted by an agent of BIDDER, attach a current Power-of-Attorney certifying the agent's authority to bind the BIDDER.

If BIDDER IS:

An Individual

By: _____

(signature of individual)

(typed or printed name)

doing business

as: _____

Business

Address: _____

Phone No. _____

A Partnership

By: _____

(Firm Name)

(signature of general partner)

(typed or printed name)

Business

Address: _____

Phone No. _____

A Corporation

By: _____

(Corporation Name)

State of

Incorporation: _____

By: _____

(signature of person authorized to sign)

(typed or printed name and title)

Attest: _____

(Secretary)

Business

Address: _____

Phone No. _____

END OF SECTION

**SECTION 00 4100.01
BIDDER STATUS FORM**

To be completed by all bidders		Part A
Please circle Yes or No for each of the following:		
YES	NO	My company is authorized to transact business in Iowa <i>(To help you determine if your company is authorized, please review the worksheet on the next page).</i>
YES	NO	My company has an office to transact business in Iowa.
YES	NO	My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
YES	NO	My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.
YES	NO	My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.
		If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.
		If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

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To be completed by resident bidders	Part B
--	---------------

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: ____/____/____ to ____/____/____ Address: _____

City, State, Zip: _____

Dates: ____/____/____ to ____/____/____ Address: _____

City, State, Zip: _____

Dates: ____/____/____ to ____/____/____ Address: _____

City, State, Zip: _____

You may attach additional sheet(s) if needed.

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to bidders who are residents? (Circle one) YES NO

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm name: _____

Signature: _____ Date: _____

You must submit the completed form to the government body requesting bids per 875 Iowa Administrative Code Chapter 156. This form has been approved by the Iowa Labor Commissioner.

END OF SECTION

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**SECTION 00 4100.02
AUTHORIZATION TO TRANSACT BUSINESS WORKSHEET**

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa. Circle Yes or No.

YES	NO	My business is currently registered as a contractor with the Iowa Division of Labor.
YES	NO	My business is sole proprietorship & I am an Iowa resident for Iowa income tax purposes.
YES	NO	My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
YES	NO	My business is an active corporation with the Iowa Secretary of State & has paid all fees required by the Secretary of State, has filed its most recent biennial report, & has not filed articles of dissolution.
YES	NO	My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, & has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
YES	NO	My business is a limited liability partnership which has filed a statement of qualification in this state & the statement has not been canceled.
YES	NO	My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa & a statement of cancellation has not been filed.
YES	NO	My business is a limited partnership or limited liability partnership which has filed a certificate of limited partnership in this state, & has not filed a statement of termination.
YES	NO	My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved & no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.

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YES	NO	My business is a limited liability company whose certificate of organization is filed in Iowa & has not filed a statement of termination.
YES	NO	My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa & the certificate has not been revoked or canceled.

END OF SECTION

**SECTION 00 4100.03
NON-COLLUSION AFFIDAVIT**

The undersigned bidder or agent, being duly sworn on oath, says that he/she has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to include anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He/She further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee gift, commission or thing of value on account of such sale.

OATH AND AFFIRMATION

I HEREBY AFFIRM UNDER THE PENALTIES FOR PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT.

Dated this _____ day of _____, _____.

Name of organization: _____

Title of person signing: _____

Signature: _____

ACKNOWLEDGEMENT

STATE OF _____)

COUNTY OF _____)

Before me, a Notary Public, personally appeared the above named and swore that the statements contained in the foregoing document are true and correct.

SUBSCRIBED AND SWORN TO ME THIS _____ DAY OF _____,

Notary Public Signature: _____

My Commission Expires: _____

END OF SECTION

SECTION 00 4325

SUBSTITUTION REQUEST FORM

REFERENCE: AIA A701 INSTRUCTIONS TO BIDDERS SUBPARAGRAPH 3.3

NOTE: SUBSTITUTION REQUESTS MUST BE RECEIVED BY THE Architect/Engineer five (5) days PRIOR TO THE RECEIPT OF BIDS.

PROJECT: SEPCSD - 2024 Roofing Replacements

A/E: Shive-Hattery, Inc.

BIDDER: _____

BY: _____

DATE: _____

SPECIFIED MATERIAL, PRODUCT OR EQUIPMENT: _____

RELATED SPECIFICATION SECTIONS: _____

RELATED DRAWING NUMBERS: _____

PROPOSED SUBSTITUTION: _____

REASON FOR PROPOSED SUBSTITUTION: _____

ATTACHED DATA: Refer to AIA Instructions To Bidders (AIA A701-1997) subparagraph 3.3 Substitutions for requirements. Attach additional pages, if necessary.

<u>Item No.</u>		<u>Description</u>

For Use by the Architect/Engineer

Substitution:	___	Approved	___	Not Approved
	___	Approved As Noted	___	Not Approved - Received too Late

END OF SECTION

**SECTION 00 5000
CONTRACTING FORMS AND SUPPLEMENTS**

PART 1 GENERAL

- 1.1 WHERE IT IS PROVIDED IN THE BID DOCUMENTS THAT THE CONTRACTOR SHALL USE AIA DOCUMENTS, THEY ARE HEREBY MADE A PART OF THESE DOCUMENTS TO THE SAME EXTENT AS IF BOUND HEREIN. AIA FORMS MAY BE PURCHASED FROM THE AMERICAN INSTITUTE OF ARCHITECTS AT WWW.AIA.ORG.
- 1.2 AGREEMENT AND CONDITIONS OF THE CONTRACT
- A. See Section 00 5200 - Agreement Form for the Agreement form to be executed.
 - B. See Section 00 7200 - General Conditions for the General Conditions.
 - C. See Section 00 7300 - Supplementary Conditions for the Supplementary Conditions.
 - D. The Agreement is based on AIA A101.
 - E. The General Conditions are based on AIA A201.
- 1.3 FORMS
- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
 - B. Bond Forms:
 - 1. Bid Bond Form: AIA A310.
 - 2. Performance and Payment Bond Form: AIA A312.
 - C. Post-Award Certificates and Other Forms:
 - 1. Application for Payment Forms: AIA G702 with AIA G703 (for Contractors).
 - D. Clarification and Modification Forms:
 - 1. Request for Interpretation Form: Contractor created PDF form.
 - 2. Substitution Request Form: CSI/CSC Form 1.5C (During the Bidding): 00 4325.
 - 3. Substitution Request Form (During Construction): 00 6325.
 - 4. Architect's Supplemental Instructions Form: Architect created PDF form.
 - 5. Construction Change Directive Form: AIA G714.
 - 6. Proposal Request Form: Architect created PDF form.
 - 7. Change Order Request Form: Contractor created PDF form.
 - 8. Change Order Form: AIA G701.
 - E. Closeout Forms:
 - 1. Certificate of Substantial Completion Form: AIA G704.
 - 2. Affidavit of Payment of Debts and Claims Form: AIA G706.
 - 3. Affidavit of Release of Liens Form: AIA G706A.
 - 4. Consent of Surety to Final Payment Form: AIA G707.

1.4 REFERENCE STANDARDS

- A. AIA A101 - Standard Form of Agreement Between Owner and Contractor where the basis of Payment is a Stipulated Sum; 2017.
- B. AIA A201 - General Conditions of the Contract for Construction; 2017.
- C. AIA A310 - Bid Bond; 2010.
- D. AIA A312 - Performance Bond and Payment Bond; 2010.
- E. AIA G701 - Change Order; 2017.
- F. AIA G702 - Application and Certificate for Payment; 1992.
- G. AIA G703 - Continuation Sheet; 1992.
- H. AIA G704 - Certificate of Substantial Completion; 2017.
- I. AIA G707 - Consent of Surety to Final Payment; 1994.
- J. AIA G710 - Architect's Supplemental Instructions; 2017.
- K. AIA G714 - Construction Change Directive; 2017.
- L. CSI/CSC Form 1.5C - Substitution Request (During the Bidding/Negotiating Stage); Current Edition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 00 5200
AGREEMENT FORM**

PART 1 GENERAL

1.1 FORM OF AGREEMENT

- A. AIA A101-2017 "Standard Form of Agreement Between Owner and Contractor", where the basis of payment is a stipulated Sum, forms the basis of the contract between the Owner and Contractor and is hereby made a part of these Documents to the same extent as if bound herein. All provisions which are not amended or supplemented remain in full force and effect. This form can be purchased from the American Institute of Architects state office as follows:

1. AIA Iowa
2. 400 Locust Street, Suite 100
3. Des Moines, IA 50309
4. Phone: 515-244-7502
5. Fax: 515-244-5347
6. www.aiaiowa.org

1.2 RELATED REQUIREMENTS

- A. Section 00 7200 - General Conditions.
- B. Section 00 7300 - Supplementary Conditions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 00 5350
INSURANCE AND BONDS - A101 EXHIBIT A**

INSURANCE AND BONDS

The following Supplements modify, change, delete from or add to the "Insurance and Bonds," American Institute of Architects (AIA) Document A101 - 2017 Exhibit A. Where any Article, Section or clause or portion thereof of the Exhibit A - Insurance and Bonds is modified or deleted by these Supplementary Conditions, the unaltered portions of that Article, Section, Section or clause or portion thereof shall remain in effect.

ARTICLE A.2 OWNER'S INSURANCE

The following Sections in Article A.2 are either selected, not selected or revised as stated below:

A.2.3.1.1 There are no specific causes of loss coverage with sub-limits.

A.2.3.1.2 There are no specific required coverage with sub-limits.

A.2.4.1 Loss of Use, Business Interruption Insurance with policy limit of \$50,000 is selected.
Delete the words "and Delay in Completion Insurance,"

A.2.4.2 Ordinance or Law Insurance with policy limit of \$500,000 is selected.

A.2.4.3 Expediting Cost Insurance with policy limit of \$50,000 is selected.

A.2.4.4 Extra Expense Insurance with policy limit of \$50,000 is selected.

A.2.4.5 Civil Authority Insurance is not selected.

A.2.4.6 Ingress/Egress Insurance is not selected.

A.2.4.7 Soft Costs Insurance with policy limit of \$50,000 is selected.

A.2.5.1 Cyber Security Insurance is not selected.

A.2.5.2 Other Insurance is not selected.

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

The following Sections in Article A.3 are either selected, not selected or revised as stated below:

A.3.1.1 In the last sentence, after the words "Contractor's Commercial General Liability",
add the words "Commercial Auto Liability, Pollution coverage, if applicable,"

A.3.1.1 After the last sentence, add the sentence:

Insurance policies required by this insurance section shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least thirty (30) days prior written notice has been given to the Owner and Architect.

Add the following to Section A.3.1.1:

A.3.1.1.1 If this insurance is written on the Comprehensive General Liability policy form, the Certificates shall be on an ACORD form, completed and supplemented in accordance with AIA G715, Instruction Sheet and Supplemental Attachment for an ACORD Certificate of Insurance form.

A.3.1.1.2 The Owner shall provide written notification to the Contractor of the cancellation or expiration of any insurance required by Exhibit A. The Owner shall provide such written notice within five (5) business days of the date the Owner is first aware of the cancellation or expiration, or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first.

A.3.1.3 In the first sentence, after the words "commercial general liability," add the words "commercial auto liability, pollution coverage, if applicable, and excess or umbrella liability"

A.3.1.3 Add the following A.3.1.3.1 to Section A.3.1.3

A.3.1.3.1 All liability policies which include the Owner as an additional insured shall include a Governmental Immunities Endorsement, pursuant to Chapter 670.4 of the Iowa Code, which endorsement shall include the following provisions:

A.3.1.3.1.1 Non-waiver of Government Immunity: The insurance carrier expressly agrees and states that the purchase of this policy and including the Owner as an Additional Insured does not waive any of the defenses of governmental immunity available to the Owner under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.

A.3.1.3.1.2 Claims Coverage: The insurance carrier further agrees that this policy of insurance shall cover only those claims not subject to the defenses of governmental immunity under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.

A.3.1.3.3 Assertion of Government Liability: The Owner shall be responsible for asserting any defense of governmental immunity, and may do so at any time and shall do so upon the timely written request of the insurance carrier.

A.3.1.3.4 Non-Denial of Coverage: The insurance carrier shall not deny coverage or deny any of the rights and benefits accruing to the Owner under this policy for reasons of governmental immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of governmental immunity asserted by the Owner.

A.3.2.1 No additional duration beyond the expiration of the period for correction of Work is required.

A.3.2.1 Add the following A.3.2.1.1 to Section A.3.2.1

A.3.2.1.1 All insurance coverages, except workers compensation, provided by the Contractor under A.3 shall provide for a waiver of subrogation to the Owner, Architect and Architect's consultants, and agents and employees.

A.3.2.2 Replace Section A.3.2.2.1 in its entirety with the following:

A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than one million (\$1,000,000) each occurrence, two million (\$2,000,000) general aggregate (endorsed to apply on a per project basis), and two million (\$2,000,000) aggregate for products-completed operations hazard (maintain for (2) two years after final payment), providing coverage for claims including

A.3.2.2.1 Replace Section A.3.2.2.1.5 in its entirety with the following:

A.3.2.2.1.5 \$250,000 limit for damage to premises rented to Contractor

A.3.2.2.1 Add Sections A.3.2.2.1.6 through A.3.2.2.1.9:

A.3.2.2.1.6 \$10,000 limit on medical expenses on any one person

A.3.2.2.1.7 \$10,000 limit on medical

A.3.2.2.1.8 Contractual liability for personal & advertising injury

A.3.2.2.1.9 Electronic data liability endorsement with limits not less than \$50,000

A.3.2.2.2 Delete Section A.3.2.2.2.4

A.3.2.3 Revise Section A.3.2.3 as follows:

A.3.2.3 Automobile Liability policy limits will be not less than one million (\$1,000,000) per accident.

A.3.2.3 Add to the end of the last sentence "including coverage for pollution liability broaden cover for automobile per CA 9948 and MCS 90 filings if required by law.

A.3.2.4 Revise Section A.3.2.4 as follows:

A.3.2.4 Revise the second sentence in Section A.3.2.4 to read"...Commercial General Liability, Automobile Liability, and Employer Liability..."

A.3.2.6 Employers' Liability policy limits will be not less than one million (\$1,000,000) each accident, one million (\$1,000,000) each employee, and one million (\$1,000,000) policy limit.

A.3.2.8 Policy limits will be not less than two million (\$2,000,000) per claim and two million (\$2,000,000) in the aggregate for Professional Liability insurance.

A.3.2.9 Policy limits will be not less than two million (\$2,000,000) per claim and two million (\$2,000,000) in the aggregate for Pollution Liability insurance.

A.3.2.10 If a Combined Professional Liability and Pollution Liability insurance policy is procured, policy limits will be not less than five million (\$5,000,000) per claim and five million (\$5,000,000) in the aggregate.

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A.3.2.11 Policy limits will be not less than one million (\$1,000,000) per claim and two million (\$2,000,000) in the aggregate for maritime liability risks insurance.

A.3.2.12 Policy limits will be not less than one million (\$1,000,000) per claim and one million (\$1,000,000) in the aggregate for manned or unmanned aircraft insurance.

A.3.3.1 No additional duration beyond the expiration of the period for correction of Work is required.

A.3.3.2.2 Railroad Protective Liability Insurance is not required and therefore A.3.3.2.2 is not selected.

A.3.3.2.3 Asbestos Abatement Liability Insurance is not required and therefore A.3.3.2.3 is not selected.

A.3.3.2.5 After the word "owned" add the words "and rented".

A.3.3.2.6 Add the following other insurance coverage to A.3.3.2.6:

Should the Contractors subcontractors or its lower tier subcontractor's work involve the moving, lifting, lowering, rigging or hoisting of property or equipment, Subcontractor shall carry Rigger's Liability insurance to insure against physical loss or damage to the property and/or equipment in the amount no less than one million (\$1,000,000).

A.3.4 The amount of each bond shall be equivalent to 100 percent of the contract sum

END OF SECTION

SECTION 00 6325

SUBSTITUTION REQUEST FORM - DURING CONSTRUCTION

TO: _____

PROJECT: SEPCSD - 2024 Roofing Replacements

OWNER: Southeast Polk Community School District

A/E: Shive-Hattery, Inc.

BID DATE: _____

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

DRAWING NO.: _____ DRAWING NAME: _____

<u>SPEC SECT.</u>	<u>SPEC NAME</u>	<u>PARAGRAPH</u>	<u>SPECIFIED ITEM</u>
_____	_____	_____	_____

Proposed Substitution:

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

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

CERTIFICATION OF EQUAL PERFORMANCE AND ASSUMPTION OF LIABILITY FOR EQUAL PERFORMANCE

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

Submitted by:

Signature: _____

Title: _____

Firm: _____

Address: _____

Telephone: _____ Date: _____

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

FOR USE BY Architect/Engineer:

☐ Accepted ☐ Accepted as Noted ☐ Not Accepted ☐ Received Too Late

Date: _____

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FILL IN BLANKS BELOW

Does the substitution affect dimensions shown on Drawings? Yes No

If Yes, clearly indicate changes:

Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? Yes No

If No, fully explain:

What effect does substitution have on other Contracts or other trades?

What effect does substitution have on construction schedule?

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

(Explain on Attachment)

Reason for Request:

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

Accurate cost data comparing proposed substitution with product specified:

Designation of maintenance services and sources:

(ATTACH ADDITIONAL SHEETS IF REQUIRED)

END OF SECTION

SECTION 00 7200

GENERAL CONDITIONS

FORM OF GENERAL CONDITIONS

AIA A201-2017 "General Conditions of the Contract for Construction" is the General Conditions between the Owner and the Contractor and is hereby made a part of these documents to the same extent as if bound herein. The document can be purchased from the American Institute of Architects state office as follows:

AIA Iowa
400 Locust Street, Suite 100
Des Moines, IA 50309
Phone: 515-244-7502
Fax: 515-244-5347
www.aiaiowa.org

RELATED REQUIREMENTS

Section 00 7300 - Supplementary Conditions.

END OF SECTION

**SECTION 00 7300
SUPPLEMENTARY CONDITIONS**

THE FOLLOWING SUPPLEMENTS MODIFY, CHANGE, DELETE FROM OR ADD TO THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AMERICAN INSTITUTE OF ARCHITECTS (AIA) DOCUMENT A201 - 2017. WHERE ANY ARTICLE, SECTION, SECTION OR CLAUSE OR PORTION THEREOF OF THE GENERAL CONDITIONS IS MODIFIED OR DELETED BY THESE SUPPLEMENTARY CONDITIONS, THE UNALTERED PORTIONS OF THAT ARTICLE, SECTION, SECTION OR CLAUSE OR PORTION THEREOF SHALL REMAIN IN EFFECT.

ARTICLE 1: GENERAL PROVISIONS

No Supplements

ARTICLE 2: OWNER

2.1 GENERAL

Add the following Clause 2.1.1.1 to Section 2.1.1:

2.1.1.1 The Owner is:

Name:	Southeast Polk Community School District
Address:	407 8th Street SE, Altoona IA 50009
Telephone:	(515) 967-4294

Add the following Clause 2.1.1.2 to Section 2.1.1:

2.1.1.2 The Owner's Authorized contract Representative is:

Name:	Gary Haines
Title:	Director of Buildings and Grounds
Address:	407 8th Street SE, Altoona IA 50009
Telephone:	515-967-3435
Email:	gary.haines@southeastpolk.org

2.3 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Section 2.3.2 and substitute the following Section 2.3.2:

2.3.2 The "Architect" is defined in this Contract as the Engineer or Architect lawfully licensed to practice architecture or engineering or an entity licensed to lawfully practice architecture or engineering in the jurisdiction where the project is located and identified as such in this Contract and as is referred to throughout the Contract documents as if singular in number. The term "Engineer," "Architect/Engineer," "Engineer/Architect," "Architect's authorized representative," "Engineer's authorized representative," or "Architect/Engineer's authorized representative" shall mean "Architect" as defined in this Section.

Delete Section 2.3.6 and substitute the following Section 2.3.6:

2.3.6 The Owner will furnish the Contractor returned copies of the Contract Documents to Action Reprographics for use in execution of the work. The Contractor may purchase additional copies at the cost of reproduction, postage, and handling.

ARTICLE 3: CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS & FIELD CONDITIONS BY CONTRACTOR

Add the following sentence to the end of 3.2.2:

3.2.2 The Contractor also represents that all Contract Documents for the Project have been examined, including those intended for work of trades not normally performed by the Contractor's own forces, and that it has become thoroughly familiar with all conditions which may pertain to or affect the Work under the Contract.

Add the following Section 3.2.5 to Section 3.2:

3.2.5 The Owner is entitled to reimbursement from the Contractor for amounts paid to the Architect for evaluating and responding to the Contractor's Requests For Information (RFI) that are not prepared in accordance with the Contract Documents or where the requested information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

Add the following Sections 3.3.4 and 3.3.5:

3.3.4 The Owner reserves the right to retain ownership to any materials or equipment that is part of the existing facility. If material or equipment is to be removed from the site, the Contractor shall detach such items and before removing from site, obtain permission from the Owner, or his designee, to do so. All items not retained by Owner shall be removed in a proper manner by the Contractor.

3.3.5 The Contractor shall submit to the Owner before construction begins one copy of Material Safety Data Sheets of hazardous substances to be stored on the Owner's premises or incorporated in the performance of this contract. The Contractor shall also keep Material Safety Data Sheets posted at the work site for all substances while these substances are on the Owner's premises. Hazardous substances shall be any substance which is covered by Law (Right to Know Rules).

3.4 LABOR AND MATERIALS

Add Sections 3.4.4 through 3.4.8:

3.4.4 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the Specifications, Division 01, General Requirements.

3.4.5 By making requests for substitutions based on Subparagraph 3.4.4 above, the Contractor:

1. Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
2. Represents that the Contractor will provide the same warranty for the substitution that the Contractor would for the specified product;
3. Certifies that the cost data presented in the substitution request is complete and includes all related costs under this Contract except the Architect/Engineer's review and/or redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and
4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects at the Contractor's expense.

3.4.6 The Owner shall be entitled to reimbursement from the Contractor for amounts paid to the Architect for reviewing the Contractor's proposed substitutions and making agreed-upon changes in the Drawings and Specifications resulting from such substitutions.

3.4.7 The Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect or Architect's Consultants to evaluate the Contractor's proposed substitutions and to make agreed-upon changes in the Contract Documents made necessary by the Owner's acceptance of such substitutions.

3.4.8 The Contractor, and its subcontractors, shall conform to local labor laws of the State in which the project resides. Prior to starting Work, the Contractor shall become familiar with local labor and trade conditions, skilled and unskilled, and shall conform to the local conditions. The Contractor shall consider the availability of labor in the area and import labor as may be required, at the Contractor's expense, to meet the Schedule for the Work.

3.6 TAXES

Delete the language in Section 3.6 and substitute the following Sections:

3.6.1 This Project is exempt from State and local sales and use taxes on sales of building materials and fixtures to construction contractors for incorporation into real estate for governmental bodies of the State of Iowa. The Contractor shall continue to pay sales tax on items that do not become a part of the Project. For details, refer to .

3.6.2 The Owner as a designated exempt entity will complete an online application to register this Project with the Iowa Department of Revenue and Finance. The Owner will distribute Tax Exemption Certificates and Authorization Letters to the Contractor and all Subcontractors who have been identified at, or before filing of the Performance Bond.

3.6.3 On or before the time the Performance Bond is filed, the Contractor shall provide a listing to the Owner identifying all Subcontractors. Contractor and Subcontractors shall make copies of the Tax Exemption Certificate and provide a copy to each supplier providing construction material. This Certificate will allow the Contractor and Subcontractors to purchase qualified building materials free from sales tax for the Project. The Tax Exemption Certificate and Authorization Letter have been developed exclusively for this purpose and are applicable only for this specific Project.

3.6.4 If the online registration is not available at the time The Contract is approved by the Owner, the Owner will notify the Contractor, in writing, and the cost of sales tax on all construction materials used for the Project will be added to the Contract Sum. The Contractor shall then submit Form 35-002 to the Owner for Iowa sales/use tax paid.

3.6.5 Payment will be made in accordance with the payment provisions set out in these specifications and the Advertisement for Bids and Notice of Public Hearing. Notwithstanding anything in these specifications and the Advertisement for Bids and Notice of Public Hearing to the contrary, no Final Payment shall be released until Form 35-002 has been filed with the Owner, where applicable, and all lien waivers are on file.

3.6.6 Notwithstanding anything herein to the contrary, Contractor shall file with Owner forms contemplated by the Iowa Code enabling Owner to apply for a refund for any sales or use tax paid in carrying out the work.

3.7 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS

Delete Section 3.7.5 and substitute the following Section 3.7.5:

3.7.5 If, in the course of the Work, the Contractor knowingly encounters and recognizes human remains, burial markers, archeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains and features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence or good faith belief of such existence of such remains or features may be made as provided in Article 15.

Add Clauses 3.7.5.1 through 3.7.5.3 to Section 3.7.5:

3.7.5.1 Upon securing building permits, any plan reviews and fees which may be required by the State or Local Jurisdiction Having Authority in which the project resides, such as Fire Alarm and Automatic Sprinkler System, shall be borne by the Contractor.

3.7.5.2 The Contractor is responsible for scheduling inspections related to the performance of its Work and ensuring Work is complete for inspections. The Contractor is responsible for any costs associated with re-inspection caused by Work that is not in accordance with the requirements of the Contract Documents. In addition, the Contractor is responsible for costs associated with Architectural/Engineering services related to evaluation of the deficiencies and development of an acceptable solution.

3.7.5.3 The Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect/Engineer or Architect/Engineer's Consultants for services related to evaluation of the deficiencies and development of an acceptable solution, including agreed-upon changes in the Contract Documents.

Add the following Section 3.7.6 and associated clauses 3.7.6.1 thru 3.7.6.3:

3.7.6 The State of Iowa, its agencies, and its political subdivisions, including cities, school districts, public partnerships, and public utilities are required by Iowa Code Section 73A.21 to require a reciprocal resident bidder and resident labor force preference.

3.7.6.1 A "Resident Bidder" means a person or entity authorized to transact business in the State of Iowa and having a place of business for transacting business within the state at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. If another state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

3.7.6.2 A resident bidder shall be allowed a preference as against a nonresident bidder from a state or foreign country other than Iowa if that state or foreign country gives or requires any preference to bidders from that state or foreign country, including but not limited to any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident.

3.7.6.3 If the Contractor is a nonresident bidder, the Contractor is required to specify in the Agreement between the Owner and Contractor whether any preference (as described in 3.7.6.2) is in effect in the nonresident bidder's state or country at the time of this bid and identify the source of the regulation.

3.9 SUPERINTENDENT

Delete Section 3.9.1 and substitute the following Section 3.9.1:

3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site whenever two or more subcontractors are performing the Work. The superintendent's absence from the project site when work is being performed does not relieve the Contractor of any responsibility for correctly performing the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

3.10 CONTRACTOR'S CONSTRUCTION AND SUBMITTAL SCHEDULE

Delete the last sentence of Section 3.10.2 so that the Section now reads:

3.10.2 The Contractor promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals.

3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Add the following Section 3.12.11:

3.12.11 The Architect's and its Consultants' review of Contractor's submittals will be limited to examination of an initial submittal and one (1) re-submittal. The Architect's review of additional submittals will be made only with the consent of the Owner after written notification to the Contractor and Owner by the Architect. The Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect for evaluation of such additional re-submittals.

3.13 USE OF SITE

Add the following Sections 3.13.1 and 3.13.2:

3.13.1 Contractor shall perform the Work so as to cause a minimum of inconvenience to and interruption of the Owner's operations. Any and all interruptions of the operations of the Owner necessary for the performance of the Work shall be noted in the Progress Schedule and the Contractor shall additionally give the Owner sufficient advanced written notice of such interruption as to allow the Owner to adjust operations accordingly. Contractor's failure to give the Owner timely written notice of such intentions shall place the responsibility of any resulting delays or additional costs solely with the Contractor.

3.13.2 The Contractor, any subcontractor, supplier, vendor or anyone else for whom the Contractor is responsible, shall not bring on the site any asbestos, PCB's, petroleum, hazardous waste or radioactive materials, except for proper use in performing the Work.

3.14 CUTTING AND PATCHING

Delete Section 3.14.1 and replace with the following:

3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. Contractor shall be responsible for cutting and patching not specifically indicated on the drawings, but required for completion of their Work. No structural member shall be cut unless approved by the Architect or Architect's Consultants. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

ARTICLE 4: ARCHITECT

4.1 GENERAL

Add the following clause 4.1.1.1 to section 4.1.1:

4.1.1.1 The Architect is:

Name:	Shive-Hattery, Inc.
Address:	4125 Westown Pkwy, Suite 100, West Des Moines, IA 50266
Phone:	515-223-8104
Project Contact People:	Cara Lindell, Project Coordinator
Contact Email Addresses:	CLindell@shive-hattery.com Submit all questions in writing to Cara Lindell's email address.

4.2 ADMINISTRATION OF THE CONTRACT

Add Clause 4.2.2.1 to Section 4.2.2:

4.2.2.1 The Owner is entitled to reimbursement from the Contractor for amounts paid the Architect for site visits made necessary by the fault of the Contractor or by defects and deficiencies in the Work. The Owner shall be entitled to deduct from the Contract Sum amounts paid to the Architect for such site visits.

Add the following sentence to the end of Section 4.2.13:

4.2.13 The term aesthetic effect includes, but is not limited to color, texture, profile, and relationship of masses.

ARTICLE 5: SUBCONTRACTORS

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

Delete Section 5.2.1 and substitute with the following Section 5.2.1:

5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, within seven (7) calendar days after award of the contract and prior to execution of the contract, shall notify the Owner and Architect of the persons or entities (proposed for each principal portion of the work including those who are to furnish materials or equipment fabricated to a special design). After receipt of the information the Architect may notify the contractor within seven (7) calendar days whether or not the Owner or the Architect, after due investigation, (1) has reasonable objection to any such proposed person or entity, or (2) requires additional time and/or information to complete the review. Failure of the Architect to reply within this time period shall constitute notice of no reasonable objections.

ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

No Supplements

ARTICLE 7: CHANGES IN THE WORK

7.1 GENERAL

Add the following Section 7.1.4 and associated clauses 7.1.4.1 thru 7.1.4.9:

7.1.4 The combined overhead and profit included in the total cost to the Owner of a change in the Work shall be based on the following schedule:

7.1.4.1 For the Contractor, for Work performed by the Contractor's own forces, 15 percent of the cost.

7.1.4.2 For the Contractor, for Work performed by the Contractor's Subcontractors, 5 percent of the amount due the Subcontractors.

7.1.4.3 For each Subcontractor involved, for Work performed by that Subcontractor's own forces, 15 percent of the cost.

7.1.4.4 For each Subcontractor involved, for Work performed by the Subcontractor's Sub-subcontractors, 5 percent of the amount due the Sub-subcontractor.

7.1.4.5 The maximum allowable combined overhead and profit passed through to the Owner under any circumstances shall be a maximum of 25 percent.

7.1.4.6 Cost to which overhead and profit is to be applied shall be determined in accordance with Section 7.3.4.

7.1.4.7 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their property can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials, and subcontracts. Itemize labor by trade, tasks, hour quantities and labor rates. Itemize materials by product, quantity and unit price. Where major cost items are subcontracts, they shall be itemized also. In no case will a change involving over \$500 be approved without such itemization.

7.1.4.8 The Contractor represents that proposals will include all related costs prior to presentation to the Owner or Architect for consideration.

7.1.4.9 The Architect's review of the Contractor's proposals will be limited to one initial submittal and one re-submittal. The Owner is entitled to obtain reimbursement from the Contractor for amounts paid to the Architect for evaluation and response to additional re-submittals, wherein the first two submittals were not prepared in accordance with the Contract Documents.

7.2 CHANGE ORDERS

Add the following Section 7.2.2:

7.2.2 The forms used to process a Change Order will include AIA Document G701, Change Order.

ARTICLE 8: TIME

8.1 DEFINITIONS

Delete Section 8.1.4 and substitute the following Section 8.1.4:

8.1.4 The term "Day" as used in the Contract Documents shall mean working day, excluding weekends and legal holidays.

8.2 PROGRESS AND COMPLETION

8.2.2 Delete the word "knowingly" in the first sentence.

8.2.3 Revise the end of the sentence after "Substantial Completion" as follows:

"...and Final Completion within the Contract Times specified."

ARTICLE 9: PAYMENTS AND COMPLETION

9.3 APPLICATION FOR PAYMENT

Delete Section 9.3.1 and substitute the following Section 9.3.1:

9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for operations completed in accordance with the schedule of values. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers. If the Contract Documents require the Owner to retain a portion of the payments until some future time, the Applications for Payment shall clearly state the percentage and the amount to be retained.

Add the following sentence to Section 9.3.1:

9.3.1 The form of Application for Payment shall be a notarized current edition of AIA Document G702, Application and Certification for Payment, supported by current edition of AIA Document G703, Continuation Sheet.

Add the following Clause 9.3.1.3 to Section 9.3.1:

9.3.1.3 Until Substantial Completion, the Owner shall pay 95 percent of the amount due the Contractor on account of progress payments.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

Delete Section 9.5.4 in its entirety.

9.6 PROGRESS PAYMENTS

Delete Section 9.6.1 and substitute the following Section 9.6.1:

9.6.1 After the Architect has issued a Certificate for Payment and the Owner has approved the Application for Payment the Owner shall make payment in the manner provided in the contract Documents and in accordance with Iowa Code Chapters 26 and 573, latest edition.

Delete the first two sentences of Section 9.6.4 so that it reads as follows:

9.6.4 Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

9.8 SUBSTANTIAL COMPLETION

Delete Sections 9.8.2 and 9.8.3 in their entirety.

9.10 FINAL COMPLETION AND FINAL PAYMENT

Add the following Clause 9.10.1.1 to Section 9.10.1:

9.10.1.1 The Architect will perform no more than 1 inspection to determine whether the Work or a designated portion thereof has attained Final Completion in accordance with the Contract Documents. The Owner is entitled to reimbursement from the Contractor for the amounts paid to the Architect for any additional inspections.

Delete Section 9.10.2 and substitute the following Section:

9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect. (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

Add the following Section 9.10.6:

9.10.6 Final payment will be made no less than thirty (30) days after the date of acceptance of the Work by the Owner subject to the provisions of Sections 9.10.1 through 9.10.5. The following documents shall be completed by the contract completion date listed on the Form of Agreement and shall be received prior to making final payment:

- 1) Building Permit(s)
- 2) Certificate of Occupancy
- 3) Affidavits
- 4) Warranties
- 5) Lien Waivers
- 6) Record Drawings
- 7) Operation & Maintenance manuals

Add the following Section 9.10.7 and Clauses 9.10.7.1 thru 9.10.7.4:

9.10.7 The following clauses are in accordance with Iowa Code, Chapter 26, Section 26.13, Early Release of Retainage, and are reiterated here for reference. Other provisions of Chapter 26, Chapter 573, and other applicable Chapters of the Code also apply:

9.10.7.1 At any time after all work on the project is substantially completed, the Contractor may request the release of all or part of the retained funds owed. The request shall be accompanied by a sworn statement of the Contractor that, ten (10) calendar days prior to filing the request, notice was given as required by Section 7 (of Chapter 26) to all known subcontractors, sub-subcontractors and suppliers.

9.10.7.2 Except as provided under Section 3 (of Chapter 26), upon receipt of such request, the Owner shall release all or part of the retained funds. Retained funds that are approved as payable shall be paid at the time of the next monthly payment or within 30 days, whichever is sooner. If partial retained funds are released pursuant to a Contractor's request, no retained funds shall be subsequently held based on that portion of the work. If within 30 days of when payment becomes due the Owner does not release the retained funds due, interest shall accrue on the amount of retained funds at the rate of interest that is calculated as the prime rate plus one percent per year as of the day interest begins to accrue until the amount is paid.

9.10.7.3 If labor and/or materials are yet to be provided at the time the request for the release of the retained funds is made, an amount equal to 200% of the value of the labor and/or materials yet to be provided, as determined by the Owner, may be withheld until such labor and/or materials are provided.

9.10.7.4 An itemization of the labor and/or materials yet to be provided, or the reason that the request of retained funds is denied, shall be provided to the Contractor within 30 calendar days of the receipt for release of retained funds.

ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

10.2 SAFETY OF PERSONS AND PROPERTY

Delete Section 10.2.2 and substitute the following Section 10.2.2:

10.2.2 The Contractor shall give notices and comply with applicable laws, ordinances, regulations and lawful orders of public authorities bearing safety of persons or property or their protection from damage, injury or loss. This requirement also includes compliance with Iowa's Smoke Free Air Act and Iowa's Sex Offender law which no longer allows registered sex offenders to be on school property without the school's permission. Refer to the Acknowledgment and Certification document 00 7300.01 that all Contractors, Subcontractors, and Vendors must sign.

Delete Section 10.2.4 and substitute the following Section 10.2.4:

10.2.4 When use, handling, and/or storage of explosives or other hazardous materials or equipment or unusual methods is necessary for execution of the work, the Contractor shall give the Owner reasonable advance notice and shall exercise utmost care and carry on such activities under the supervision of properly qualified personnel.

10.3 HAZARDOUS MATERIALS

Add the following sentence to Section 10.3.4:

10.3.4 No product containing asbestos, Polychlorinated Biphenyl (PCB), lead-based materials or any other hazardous material identified by the United State Environmental Protection Agency shall be incorporated into the Work.

ARTICLE 11: INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE AND BONDS

Add the following paragraphs to Section 11.1.2:

11.1.2.1 The Contractor shall deliver the required bonds to the Owner not later than seven days following the date the Agreement is entered into, or if the work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to commencement of the work, submit evidence satisfactory to the Owner that such bonds will be furnished.

11.1.2.2 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 12: UNCOVERING AND CORRECTION OF WORK

Add the following Clause 12.2.2.4 to Section 12.2.2:

12.2.2.4 Upon request by the Owner and prior to the expiration of one year from the date of Substantial Completion, the Architect will conduct and the Contractor shall attend a meeting with the Owner to review the facility operations and performance.

ARTICLE 13: MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW

Delete the language in Section 13.1 and substitute the following language:

13.1 The Contract shall be governed by the law of the place where the Project is located.

13.5 INTEREST

Delete Section 13.5 and substitute the following Section 13.5:

13.5 Payments due and unpaid under the Contract Documents shall bear interest from the date the payment is due and shall bear interest at the rate established by Section 74A.2 and 573.12, Code of Iowa, latest revision.

13.6 EQUAL EMPLOYMENT OPPORTUNITY

Add the following subparagraphs to 13.6:

13.6.1 The Contractor shall conform in all respects with the provisions of the Federal Civil Rights Act, the Code of Iowa, Chapter 216 Civil Rights Commission and the rules and regulations adopted thereto by the Iowa Civil Rights Commission. The Contractor shall not discriminate against any employee or applicant because of race, color, religion, sex, national origin, sexual orientation, gender identity, ancestry, age, marital status, physical or mental handicap. The Contractor shall require similar clauses in all of its subcontracts for service or materials.

ADD THE FOLLOWING SECTION TO ARTICLE 13:

13.1 NICOTINE FREE ZONE

Add the following subparagraph to 13.11:

13.1.1 Nicotine is not allowed on the Owner's premises which includes personal or company vehicles parked on the Owner's property.

13.2 SEX OFFENDER ACKNOWLEDGEMENT AND CERTIFICATION

Add the following subparagraphs to 13.12:

13.2.1 Iowa law prohibits a sex offender who has been convicted of a sex offense against a minor from being present upon the real property of the schools of the District. The Contractor, all sub-contractors, suppliers and vendors acknowledge and certify that, pursuant to law, a sex offender who has been convicted of a sex offense against a minor may not operate, manage, be employed by, or act as a contractor, sub-contractor, supplier or vendor at the schools of the District.

13.2.2 The Contractor and all sub-contractors, suppliers and vendors shall provide a signed original of an Acknowledgment and Certification letter (provided at the end of this Document). No worker of the Contractor, sub-contractors, suppliers or vendors will be allowed to work, deliver or conduct business on site until this letter is received by the Architect.

13.2.3 It shall be the responsibility of the Contractor to provide the Acknowledgment and Certification letter to all sub-contractors, suppliers and vendors. An initial list of sub-contractors, suppliers and vendors shall be provided to the Architect with the signed contract. Updates to the sub-contractor, supplier and vendor list shall be provided to the Architect within three (3) days after any additional entities are contracted with by the Contractor.

ARTICLE 14: TERMINATION OR SUSPENSION OF THE CONTRACT

No Supplements

ARTICLE 15: CLAIMS AND DISPUTES

15.1 CLAIMS

Delete Section 15.1.2 in its entirety and substitute the following Section 15.1.2 and Clauses 15.1.2.1 thru 15.1.2.3:

15.1.2 Time Limits on Claims - As between the Owner and the Contractor, the commencement of the statutory limitation period shall be as follows:

15.1.2.1 Before Substantial Completion. As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion.

15.1.2.2 Between Substantial Completion and Final Certificate for Payment. As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment.

15.1.2.3 After Final Certificate of Payment. As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Section 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Section 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

Add Clauses 15.1.5.3 and 15.1.5.4 to Section 15.1.5:

15.1.5.3 Claims for increase in the Contract Time shall set forth in detail the circumstances that form the basis for the Claim, the date upon which each cause of delay began to affect the progress of the Work, the date upon which each cause of delay ceased to affect the progress of the Work and the number of days' increase in the Contract Time claimed as a consequence of each such cause of delay. The Contractor shall provide such supporting documentation as the Owner may require including, where appropriate, a revised construction schedule indicating all the activities affected by the circumstances forming the basis of the Claim.

15.1.5.4 The Contractor shall not be entitled to a separate increase in the Contract Time for each one of the number of causes of delay which may have concurrent or interrelated effects on the progress of the Work, or for concurrent delays due to the fault of the Contractor.

15.2 INITIAL DECISION MAKER

Delete last sentence of Section 15.2.5 and substitute the following:

15.2.5 "If the parties do not mutually agree with the decision of the Initial Decision Maker, then resolution shall be subject to litigation, unless an alternative dispute resolution process such as mediation or arbitration is mutually agreeable to by the parties involved in the dispute."

Delete Section 15.2.6.

Delete Sections 15.3 and 15.4 in their entirety.

END OF SECTION

SECTION 00 7300.01
SEX OFFENDER ACKNOWLEDGMENT AND CERTIFICATION

_____ (“Company”) is providing services to the
_____ School District (“District”) as a vendor, supplier, or contractor or is operating or managing the operations of a vendor, supplier or contractor. The services provided by the Company may involve the presence of the Company’s employees upon the real property of the schools of the District.

The Company acknowledges that Iowa law prohibits a sex offender who has been convicted of a sex offense against a minor from being present upon the real property of the schools of the District. The Company further acknowledges that, pursuant to law, a sex offender who has been convicted of a sex offense against a minor may not operate, manage, be employed by, or act as a contractor, vendor or supplier of services or volunteer at the schools of the District.

The Company hereby certifies that no one who is an owner, operator or manager of the Company has been convicted of a sex offense against a minor. The Company further agrees that it shall not permit any person who is a sex offender convicted of a sex offense against a minor to provide any services to the District in accordance with the prohibitions set forth above.

This Acknowledgment and Certification is to be construed under the laws of the State of Iowa. If any portion hereof is held invalid, the balance of the document shall, notwithstanding, continue in full legal force and effect.

In signing this Acknowledgment and Certification, the person signing on behalf of the Company hereby acknowledges that he/she has read this entire document, that he/she understands its terms, and that he/she not only has the authority to sign the document on behalf of the Company, but has signed it knowingly and voluntarily.

Dated: _____

[name of vendor/supplier/contractor/sub-contractor]

By: _____

Printed Name: _____

Title: _____

END OF SECTION

**SECTION 01 1000
SUMMARY**

PART 1 GENERAL

1.1 PROJECT

- A. Project Name: SEPCSD - 2024 Roofing Replacements
- B. Owner's Name: Southeast Polk Community School District.
- C. Architect's Name: Shive-Hattery, Inc.
- D. The Project consists of the removal and replacement of the roofs on Level M and Level R at Southeast Polk High School and Level D at Altoona Elementary.

1.2 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

1.3 PROJECT SCHEDULE

- A. The project schedule is defined in the Advertisement for Bids.

1.4 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- B. Owner intends to fully occupy the Project upon Substantial Completion.
- C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- D. Schedule the Work to accommodate Owner occupancy.

1.5 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
- B. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.

3. Driveways and Entrances: Keep driveways, parking garage, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, or emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Existing building spaces may not be used for storage.
- D. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
- E. Time Restrictions: Work shall be generally performed inside the existing building during normal business working hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, except otherwise indicated.
- F. Utility Outages and Shutdown:
 1. Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 2. Limit disruption of utility services to hours the building is unoccupied.
 3. Prevent accidental disruption of utility services to other facilities.
 4. Notify Architect not less than two days in advance of proposed utility interruptions.
 5. Do not proceed with utility interruptions without Architect's written permission.

1.6 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Procedures for preparation and submittal of application for final payment.

1.2 RELATED REQUIREMENTS

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
- B. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - 1. Application for Payment forms with Continuation Sheets.
 - 2. Submittals Schedule.
 - 3. Contractor's Construction Schedule.
- C. Form to be used: AIA Document G703 Continuation Sheets
- D. Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
- E. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect/Engineer for approval.
- F. Forms filled out by hand will not be accepted.
- G. Submit Schedule of Values to Architect at earliest possible date but no later than 7 days after date on the Owner/Contractor Agreement.

- H. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization. Provide at least one line item for each Specification Section. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - 1. Related Specification Section or Division.
 - 2. Description of the Work.
 - 3. Name of subcontractor.
 - 4. Name of manufacturer or fabricator.
 - 5. Name of supplier.
 - 6. Change Orders (numbers) that affect value.
 - 7. Dollar value.
 - a. Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
- I. Revise schedule to list approved Change Orders, with each Application For Payment.
- J. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
- K. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
- L. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
- M. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
- N. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- O. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - 1. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
- P. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Form to be used: AIA Document G702 and AIA Document G703 Continuation Sheets.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect/Engineer for approval.
- D. Forms filled out by hand will not be accepted.

- E. For each item, provide a column for listing each of the following:
1. Item Number.
 2. Description of work.
 3. Scheduled Values.
 4. Previous Applications.
 5. Work in Place and Stored Materials under this Application.
 6. Authorized Change Orders.
 7. Total Completed and Stored to Date of Application.
 8. Percentage of Completion.
 9. Balance to Finish.
 10. Retainage.
- F. Execute certification by signature of authorized officer.
- G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- I. Submit one electronic copy of each Application for Payment.
- J. When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question.
- K. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Products list.
 5. Schedule of unit prices.
 6. Submittals Schedule (preliminary if not final).
 7. List of Contractor's staff assignments.
 8. List of Contractor's principal consultants.
 9. Copies of building permits.
 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 11. Initial progress report.
 12. Report of preconstruction conference.
 13. Certificates of insurance and insurance policies.
 14. Performance and payment bonds.
 15. Data needed to acquire Owner's insurance.
 16. Initial settlement survey and damage report if required.

- L. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- M. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - 6. AIA Document G707, "Consent of Surety to Final Payment."
 - 7. Evidence that claims have been settled.
 - 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 - 9. Final, liquidated damages settlement statement.

1.6 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Section 01 7000.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 2500
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.2 RELATED REQUIREMENTS

- A. Section 00 2113 - Instructions to Bidders: Restrictions on timing of substitution requests.
- B. Section 00 4325 - Substitution Request Form: Required form for substitution requests made prior to award of contract (During procurement).
- C. Section 00 6325 - Substitution Request Form - During Construction: Required form for substitution requests made after award of contract (During construction).
- D. Section 01 3000 - Administrative Requirements: Submittal procedures, coordination.
- E. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.3 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
 - 1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
 - a. Unavailability.
 - b. Regulatory changes.

1.4 REFERENCE STANDARDS

- A. CSI/CSC Form 1.5C - Substitution Request (During the Bidding/Negotiating Stage); Current Edition.
- B. CSI/CSC Form 13.1A - Substitution Request (After the Bidding/Negotiating Phase); Current Edition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 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/Engineer for review or redesign services associated with re-approval by authorities.
- B. A Substitution Request for specified installer constitutes a representation that the submitter:
1. Has acted in good faith to obtain services of specified installer, but was unable to come to commercial, or other terms.
- C. 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.
- D. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
1. Forms indicated in the Project Manual are adequate for this purpose, and must be used.
- E. Limit each request to a single proposed substitution item.
1. Submit an electronic document, combining the request form with supporting data into single document.

3.2 SUBSTITUTION PROCEDURES DURING PROCUREMENT

- A. Section 00 2113 - Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period, and the documents required. Comply with requirements specified in Section 00 2113 - Instructions to Bidders, unless time is modified by 00 2115 - SUPPLEMENTAL INSTRUCTIONS TO BIDDERS.
- B. Submittal Form (before award of contract):
1. Submit substitution requests by completing the form in Section 00 4325; see this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- C. Owner will consider requests for substitutions only if submitted at least five (5) days prior to the date for receipt of bids. Requests received after that time may be considered or rejected at discretion of Architect.

3.3 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

- A. Submittal Form (after award of contract):
1. Submit substitution requests by completing the form in Section 00 6325; see this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- B. 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/Engineer, in order to stay on approved project schedule.

- C. 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/Engineer, 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/Engineer for any required redesign, time spent processing and evaluating the request.
 - b. Other construction by Owner.
 - c. Other unanticipated project considerations.
- D. 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.

3.4 RESOLUTION

- A. Architect/Engineer may request additional information and documentation prior to rendering a decision. Architect will request information or documentation within 7 days of receipt of a request for substitution.
- B. Architect/Engineer will notify Contractor in writing of decision to accept or reject request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

3.5 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.

3.6 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.
- B. Include completed Substitution Request Forms as part of the Project record. Include both approved and rejected Requests.

END OF SECTION

**SECTION 01 2600
CONTRACT MODIFICATION PROCEDURES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Minor Changes in the Work
- B. Proposal Requests
- C. Allowances
- D. Change Order Procedures
- E. Construction Change Directive

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, as a Software Generated "Architect's Supplemental Instruction".

1.4 PROPOSAL REQUESTS

- A. Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 10 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Division 01 Section 01 6000 "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use Software-Generated Proposal Request.
- C. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Architect/Engineer.
- D. Unit Price Change Order: For predetermined unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not predetermined, execute Work under a Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- E. Construction Change Directive: Architect/Engineer may issue a directive, on AIA Form G714 Construction Change Directive signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.
- F. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect/Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- G. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- H. Change Order Forms: AIA G701 Change Order.
- I. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Work Change Directive.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General administrative requirements.
- B. Electronic document submittal service.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Construction progress schedule.
- F. Submittals for review, information, and project closeout.
- G. Number of copies of submittals.
- H. Requests for Interpretation (RFI) procedures.
- I. Submittal procedures.
- J. Administrative and supervisory personnel
- K. Requests for information (RFI).

1.2 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to Architect/Engineer:
 - 1. Requests for Interpretation (RFI).
 - 2. Requests for substitution (using specification section 00 6325).
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 11. Closeout submittals.

1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking interpretation, information, or clarification of the Contract Documents.
- B. Action Submittals: Written and graphic information that does require Architect's responsive action.

- C. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.4 PROJECT COORDINATION

- A. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- B. Coordination (Single-Prime): Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Coordinate operations with operations included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
 - 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
 - 5. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Preparation of the Schedule of Values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Project closeout activities.
- E. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, email addresses, and telephone numbers, including home, mobile, and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1.6 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
- B. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
- C. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
- D. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.

1.7 REQUESTS FOR INFORMATION (RFI)

- A. Procedure: Immediately on discovery of the need for information or interpretation of the Contract Documents, prepare and submit a Request for Information (RFI) in the form specified, with a necessary question regarding ambiguities or conflicts in the documents or field conditions, concealed conditions at the site, clarification of a contract requirement, dimensions, or other information for which clarification is required.
 - 1. RFIs shall originate with Contractor, Architect, or Owner. RFIs submitted by entities other than Contractor, Architect, or Owner will be returned with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
 - 3. The Contractor is required to review all RFIs submitted by subcontractors and suppliers for completeness, accuracy, validity, and justification prior to submission to the Architect. The Contractor can commonly answer subcontractor /supplier RFIs without delegation to the Architect.
 - 4. Promptly submit any RFIs that could result in a delay of the activities on the critical path if the resolution is not obtained promptly. Provide a date on each RFI that the response is required by, in order to not have an impact on the critical path of construction activities.
 - 5. In the case of a condition that requires a change in the work to resolve a conflict or other condition, the Contractor shall include a recommendation for resolution of the condition and submit a separate Change Order Request (COR).

6. The Architect's response to an RFI is not an authorization to proceed with work involving additional cost, time or both. If the response involves additional work, the Contractor shall provide the Architect with a complete description of work added and work deleted by the response within seven (7) days of the issued date of the RFI response. If the response involves additional work for which the Contractor will seek an adjustment to the contract sum, time or both, the Contractor shall submit a cost proposal in the form of a Change Order Request (COR) to the Architect. The Contractor shall not proceed with incorporating the response into the work until a Change Order or, Construction Change Directive has been fully executed.
7. Unless notified otherwise by the Contractor, the Architect's RFI response shall have the same effect as the Architect's order for minor changes in the Work. The Contractor will proceed with the Work, and the response will be incorporated into the contract that same as the Architect's written order for minor changes in the Work. Notify the Architect in writing if noted modifications cannot be made due to conflicting circumstances in the field, in other contract documents, or for other reasons.
8. The Contractor shall not incorporate any language into RFIs or Change Proposals that imply future additional costs or delays beyond those fully explained within the document. The Contractor may stipulate conditions or constraints under which the pricing or time may change; however, such conditions or constraints shall not infringe on the Architect's or Owner's right to adequate time for review of the issue.
9. The Contractor shall not submit Confirming RFIs, i.e., RFIs requesting confirmation of information already in the contract documents or previously provided, or requesting confirmation to questions previously answered or clarification previously given. Similarly, the Contractor shall not submit Repetitive RFIs, i.e., RFIs, wherein the same information is requested more than once, even if phrased in another format or asked in a different manner. Confirming & Repetitive RFIs are considered frivolous.
10. The Contractor shall not retain or suppress RFIs for group submissions. Each individual RFI is to be submitted expeditiously upon occurrence. Numerous RFIs submitted in a short time period will not be considered reasonable, and will result in review times being extended accordingly.
11. The Contractor shall not install any components in locations other than as indicated on the contract documents unless 1) all other affected work has been reviewed and coordinated with the relocation; and 2) the relocation is the resolution for an RFI, including a statement by the Contractor that the relocation has been coordinated with other affected work.
12. The Contractor shall not use an RFI as a means of proposing a deviation, an alternative product, arrangement, or installation for the Contractor's convenience; these proposals shall be submitted as Substitution Requests, and the RFI voided. A contractor-proposed alternative arrangement or installation submitted as an RFI will not become the subsequent basis for a claim by the contractor.
13. The Owner is entitled to reimbursement from the Contractor for amounts paid to the Architect for evaluating and responding to:
 - a. Incomplete, illegitimate, or frivolous Contractor's requests for information and requests for information that are not prepared in accordance with the Contract Documents.

- b. Contractor requests for information where the requested information is available to the Contractor from a careful study and comparison of the contract documents, field conditions, contractor-prepared coordination drawings, other Owner/Architect-provided information or prior project correspondence or documentation.
 - c. Contractor-proposed alternative arrangements or installations for the convenience of the contractor which, upon acceptance, requires the Architect to revise the contract documents.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 - 1. Project name.
 - 2. Date.
 - 3. Name of Contractor.
 - 4. Name of Architect.
 - 5. RFI number, numbered sequentially.
 - 6. Specification Section number and title and related paragraphs, as appropriate.
 - 7. Drawing number and detail references, as appropriate.
 - 8. Field dimensions and conditions, as appropriate.
 - 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 10. Contractor's signature or review stamp.
 - 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing information or interpretation. Each RFI shall include sufficient detail for evaluation.
 - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
- D. Architect Action: Architect will review each RFI, determine action required, and return it. Allow an average of ten working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day. Some issues may take longer for review, the recipient of the RFI shall notify the sender of the RFI if additional time is required.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions or deviations.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete, inaccurate, invalid, and unjustified RFIs or RFIs with numerous errors.

- g. Confirming or Repetitive RFIs.
- 2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
- 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit a Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If the Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within seven days of receipt of the RFI response.
- E. RFI Log: RFI Log will be maintained on the Newforma Info Exchange Site provided by the Architect. The software/site will be used to generate, transmit, log, and receive RFIs and RFI responses on the project. The RFI Log can be exported from the site and used to communicate with other project team members. Software log with not less than the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 - 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 ELECTRONIC DOCUMENT SUBMITTAL SERVICE

- 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 an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees 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. Contractor and Architect/Engineer are required to use this service.
 - 3. It is Contractor's responsibility to submit documents in allowable format.

4. Subcontractors, suppliers, and Architect/Engineer's consultants are to be permitted to use the service at no extra charge.
 5. 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), unless such software capability is provided by the service provider.
 6. Paper document transmittals will not be reviewed; emailed electronic documents will not be reviewed.
 7. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.
- B. Submittal Service: The selected service is:
1. Newforma ConstructEx: www.newforma.com/products/constructex/#sle.
- C. Training: A minimum one, one-hour, web-based training session will be arranged for all participants, with representatives of Architect/Engineer and Contractor participating; further training is the responsibility of the user of the service.
- D. Project Closeout: Architect/Engineer will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.

3.2 NEWFORMA INFO EXCHANGE SERVER

- A. Newforma Info Exchange server: The Architect will provide the Contractor access to this server to download and upload files via any internet-capable computer running Internet Explorer.
- B. Benefits and features of Newforma Info Exchange for the Contractor include:
1. A collaborative submittal log is maintained within Newforma Info Exchange by the Architect and Contractor.
 2. Submittal data files transmitted through Newforma Info Exchange bypass the file size limits of email systems.
 3. Submittal data files transferred through Newforma Info Exchange are encrypted.
 4. Notifications and reminders can be optionally scheduled and expiration dates for documents can be automatically set.
 5. CD/DVD disc: The contractor is required to keep backup copies of any data submitted to the Architect in CD/DVD format. The Contractors transmittal letter identifying the project and contents of the disc must accompany the CD/DVD.
- C. Exceptions: The following submittals are not to be done electronically.
1. Samples, color charts, original warranties, and notarized affidavits.

3.3 PRECONSTRUCTION MEETING

- A. Schedule meeting after Notice of Award.
- B. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
- C. Attendance Required Authorized Representatives of:
1. Owner.
 2. Architect/Engineer and their subconsultants.

3. Contractor and its superintendent; major subcontractors; suppliers, and other concerned parties.
- D. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
- E. Agenda: Discuss items of significance that could affect progress, including the following:
 1. Execution of Owner-Contractor Agreement.
 2. Submission of executed bonds and insurance certificates.
 3. Distribution of Contract Documents.
 4. Procedure for maintaining Record Documents.
 5. Use of premises and existing building.
 6. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 7. Submission of initial Submittal schedule.
 8. Designation of personnel representing the parties to Contract and their duties.
 9. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 10. Scheduling (tentative construction schedule and phasing).
 11. Critical work sequencing and long-lead items.
 12. Procedures for RFIs.
 - a. Incomplete, illegitimate, or frivolous Contractor's requests for information and requests for information that are not prepared in accordance with the Contract Documents.
 - b. Contractor requests for information where the requested information is available to the Contractor from a careful study and comparison of the contract documents, field conditions, contractor-prepared coordination drawings, other owner/architect-provided information or prior project correspondence or documentation.
 13. Work restrictions.
 14. Owner's occupancy requirements.
 15. Responsibility for temporary facilities and controls.
 16. Construction waste management and recycling.
 17. Parking availability.
 18. Office, work, and storage areas.
 19. Equipment deliveries and priorities.
 20. First aid.
 21. Safety and Security.
 22. Progress cleaning.
 23. Working hours.
- F. Record minutes and distribute copies within two days after meeting to participants, with electronic copies to Architect/Engineer, Owner, Contractor participants, and those affected by decisions made.

3.4 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum appropriate intervals. Coordinate dates of meetings with preparation of payment requests.
- B. Contractor will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Owner, Architect/Engineer, Contractor Project Manager and Job Superintendent as appropriate to agenda topics for each meeting. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
- D. 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. Maintenance of progress schedule.
 - 7. Corrective measures to regain projected schedules.
 - 8. Planned progress during succeeding work period.
 - 9. Coordination of projected progress.
 - 10. Maintenance of quality and work standards.
 - 11. Effect of proposed changes on progress schedule and coordination.
 - 12. Access.
 - 13. Site utilization.
 - 14. Temporary facilities and controls.
 - 15. Work hours.
 - 16. Hazards and risks.
 - 17. Progress cleaning.
 - 18. Status of correction of deficient items.
 - 19. Field observations.
 - 20. RFIs.
 - 21. Status of proposal requests.
 - 22. Status of Change Orders.
 - 23. Pending claims and disputes.
 - 24. Documentation of information for payment requests.
 - 25. Other business relating to work.
- E. Record minutes and distribute electronic copies within two days after meeting to participants, and those affected by decisions made.

3.5 CONSTRUCTION PROGRESS SCHEDULE- SEE SECTION 01 3216

- 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. 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.
- C. Submit updated schedule with each Application for Payment.

3.6 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.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do not forward requests which solely require internal coordination between subcontractors.
 - 2. Prepare in a format and with content acceptable to Owner.
 - 3. Prepare using software provided by the Electronic Document Submittal Service.
 - 4. 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 - 01 6000 - 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/Engineer, 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/Engineer'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.
 - 5. Identify and include improper or frivolous RFIs.
- H. Review Time: Architect/Engineer will respond and return RFIs to Contractor within 14 calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 3:00 PM 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/Engineer 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.

3.7 SUBMITTAL SCHEDULE

- A. Submit to Architect/Engineer for review a schedule for submittals in tabular format.
 1. Submit at the same time as the preliminary schedule.
 2. Coordinate with Contractor's construction schedule and schedule of values.
 3. Format schedule to allow tracking of status of submittals throughout duration of construction.
 4. 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.
 5. 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.

3.8 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect/Engineer for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.9 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Architect/Engineer's knowledge as contract administrator or for Owner.

3.10 SUBMITTALS FOR PROJECT CLOSEOUT

- A. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- B. Submit for Owner's benefit during and after project completion.

3.11 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in Adobe Portable Document Format PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected. Submit separate PDF files for each specification section. Multiple sections combined into one PDF file will be returned to the Contractor.
 - 1. Name Files according to the following format: <Section Number> <Item Description>. For example: 08 1113 Hollow Metal Doors Shop Drawings.
 - 2. For shop drawings, the size of the electronic image must be equal with the standard paper size of the sheet, for example:
 - 3. A 30" x 42" drawing should not be placed on an 11" x 17" sheet size.
 - 4. An 11" x 17" drawing should not be placed on a 30" x 42" sheet size.
 - 5. For electronic shop drawings larger than 11" x 17", one hard copy of the drawing(s) is required to be submitted with the electronic copy. The hard copy will NOT be returned to the Contractor.
 - 6. If the Architect deems the electronic submittal illegible, corrupted, and unusable, or if the file size is unreasonably large, then a new electronic copy or hard copy will be required.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect/Engineer.
 - 1. After review, produce duplicates of the Architect's review information.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.12 SUBMITTAL PROCEDURES

A. General Requirements:

1. Use a separate transmittal for each item.
2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
3. Transmit using approved form.
 - a. Use Contractor's form, subject to prior approval by Architect/Engineer OR
 - b. Use form generated by Electronic Document Submittal Service software.
4. Sequentially identify each item. For revised submittals use original number and a sequential combination numerical and alphabetical suffix.
5. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
6. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
7. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Send submittals in electronic format via email to Architect/Engineer (under 10MB in size) OR
 - b. Upload submittals in electronic form to Electronic Document Submittal Service website.
8. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - b. For sequential reviews involving Architect/Engineer's consultants, Owner, or another affected party, allow an additional 7 days.
9. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
10. Provide space for Contractor and Architect/Engineer review stamps.
11. When revised for resubmission, identify all changes made since previous submission.
12. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
13. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
14. Submittals not requested will not be recognized or processed.

B. Product Data Procedures:

1. Submit only information required by individual specification sections.

2. Collect required information into a single submittal.
 3. Submit concurrently with related shop drawing submittal.
 4. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 2. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
1. Transmit related items together as single package.
 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.
 3. Include with transmittal high-resolution image files of samples to facilitate electronic review and approval. Provide separate submittal page for each item image.
- E. Submittal System: The contractor will provide electronic submittals using Newforma Info Exchange Server provided by the Architect.
- F. Submittal Schedule:
1. The Contractor will prepare a submittal schedule.
 2. In preparing the schedule, the Contractor should consider time required for review, ordering, manufacturing, fabrication, and delivery plus include additional time required for making corrections or revision to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - a. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - b. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - c. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
 - d. Format: Arrange the following information in a tabular format:
 - 1) Schedule date for first submittal.
 - 2) Specification Section number and title.
 - 3) Submittal category: Action or Informational.
 - 4) Name of subcontractor.
 - 5) Description of the Work covered.
 - 6) Scheduled date for Architect's final release or approval.
 - 7) Scheduled date of fabrication.
 - 8) Scheduled dates for purchasing.
 - 9) Scheduled dates for installation.
 - 10) Activity or event number.

- G. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
1. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received. This includes the right to withhold action on a submittal requiring color selection until all related color samples or submittals are received.
 2. The Contractor is responsible for assuring that each submittal is in full compliance with the submittal requirements prior to forwarding to the Architect for review. Submittals which are incomplete will be considered as not submitted until all submittal requirements are fulfilled. The architect has sole discretion to return incomplete submittals without review, to hold submittals until all requirements are fulfilled, to review partial submittals, or to waive partial requirements. In exercising this discretion, the Architect will incur no obligation to apply the same action to any other submittal.
 3. The Contractor is responsible for timely submission of submittals to allow for review and any subsequent corrections necessary prior to undertaking any work covered by the submittal.
- H. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including re-submittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals or consultants is required. Architect will advise Contractor when a submittal being processed requires extended review time for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
 4. Sequential Review: Where the Contract Documents indicate that submittals shall be reviewed sequentially by Architect's consultants, Owner, or other parties, allow 21 days for initial review of each submittal.
 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
 6. Except for required concurrent reviews, the Contractor shall not retain or suppress submittals for group submissions. Each individual submittal is to be transmitted expeditiously upon preparation. Numerous submittals transmitted in a short time period will not be considered reasonable, and will result in review times being extended accordingly. In such cases, the Contractor may request priority consideration of certain submittals.
 7. Should the Contractor request an expedited review in order to maintain schedule, the requests will be approved at the sole discretion of Architect. Rejection will not be cause for any claims for delay or additional cost by the Contractor. The Contractor shall be solely responsible should such rejection result in the completion of construction to occur after the contract deadlines.

- I. Transmittal Form: Use Newforma Info Exchange Transmittal or Contractor's own form as approved by the Architect. When using the Architect's electronic submittal procedure, the transmittal form is part of the submittal file.
- J. Transmit each submittal with a copy of approved submittal form.
- K. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will reject and return received from sources other than Contractor.
 - 1. Transmittal Form Content: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Specification Section number and title.
 - i. Drawing number and detail references, as appropriate.
 - j. Transmittal number (numbered consecutively).
 - k. Submittal and transmittal distribution record.
 - l. Remarks.
 - m. Signature of transmitter.
- L. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- M. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- N. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- O. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
- P. Include the following information on label for processing and recording action taken:
 - 1. Project name.
 - 2. Date.
 - 3. Name and address of Architect.
 - 4. Name and address of Contractor.

5. Name and address of subcontractor.
 6. Name and address of supplier.
 7. Name of manufacturer.
 8. Submittal number or other unique identifier, including revision identifier.
 - a. Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06-1000.01). Re-submittals shall include an alphabetic suffix after another decimal point (e.g., 06-1000.01.A).
 9. Number and title of appropriate Specification Section.
 10. Drawing number and detail references, as appropriate.
 11. Location(s) where product is to be installed, as appropriate.
 12. Other necessary identification.
- Q. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- R. When revised for resubmission, identify all changes made since previous submission.
- S. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- T. Submittals not requested will not be recognized or processed.

3.13 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. Submit Product Data before or concurrent with Samples.

3.14 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit PDF copies of each submittal, unless otherwise indicated. Architect will not return copies.
 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 3. Test and Inspection Reports: Comply with requirements specified in Division 01 Quality Requirements.
 4. O&M and Closeout Requirements: Retain submission of closeout documentation (Manufacturer's Instructions, Warranties, etc.) until the end of the project, do not submit with individual specification section Product Data or Shop Drawing Submittals. Comply with the requirements specified in Division 01 Execution and Closeout Requirements.
 5. Informational Submittals listed in this Section are to be submitted separate from individual specification section Product Data or Shop Drawing submittals they are, by default, still considered "Informational Submittals", and as such the Architect Action Stamp does not apply to these portions unless specific comments are made otherwise.

- B. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- C. Material Safety Data Sheets (SDS): Submit information directly to Owner; do not submit to Architect except as required in "Action Submittals" Article.

3.15 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Review each submittal for accuracy and completeness of dimensions and quantities, and for performance of equipment or systems. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect. Submittals deemed by the Architect to not have been reviewed by the Contractor prior to submission may be returned and considered as "Not Submitted".
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents and coordinated with other Work of the contract.

3.16 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 1. Furnish as Submitted: Denotes that the submittal meets the criteria of the drawings and specifications and no revisions are required. The Contractor may proceed with fabrication or procurement of the item reviewed and may proceed with the work shown on the drawings and specifications for this item.
 - 2. Furnish as Corrected: Denotes that there are deficiencies, but the Contractor may proceed with fabrication or procurement of the item reviewed and may proceed with the work shown on the drawings and specifications for the item if the deficiencies are first corrected.
 - 3. Revise and Resubmit: Denotes that the submittal does apply to the drawings and specifications, but insufficient detail has been shown or the submittal contains too many errors or omissions. The Contractor may NOT proceed with fabrication or procurement of the item reviewed and may NOT proceed with the work shown on the drawings and specifications for the item. The Contractor must revise the submittal and resubmit for review.
 - 4. Incomplete - Resubmit: Denotes that some portion of the submittal is incomplete and the Architect cannot, therefore, review the submittal. The Architect will describe the incompleteness by comment on the submittal. The Contractor may NOT proceed with fabrication or procurement of the item reviewed and may NOT proceed with the work shown on the drawings and specifications for the item. The Contractor must revise the submittal and resubmit for review.

- 5. Rejected: Denotes that the submittal does not apply to the item specified or was not specified. The Contractor may NOT proceed with fabrication or procurement of the item reviewed and may NOT proceed with the work shown on the drawings and specifications for the item, and the Contractor must prepare a new submittal. The Architect will describe the reason for rejection by comment on the submittal.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. Architects review is only for limited purpose of checking for general conformance with the information given and design concept expressed in the Contract Documents.
- G. Unless notified otherwise by the Contractor, the Architect's notations, comments, and mark-ups on approved submittals shall have the same effect as the Architect's order for minor changes in the Work not involving adjustment in the contract sum or extension in the contract time. The Contractor will proceed with the work, and the response will be incorporated into the contract the same as the Architect's written order for minor changes in the Work. Notify Architect in writing if noted modifications cannot be made due to conflicting circumstances in the field, in other contract documents, or for other reasons.
- H. If the Contractor believes that the Architect's notations, comments, or mark-ups constitute a change that results in added cost or time, the Contractor is to notify the Architect in writing within seven (7) days of receipt of the reviewed submittal. Do not proceed with changes that result in added cost or time until the matter is resolved in accordance with other provisions of the contract.

END OF SECTION

**SECTION 01 3216
CONSTRUCTION PROGRESS SCHEDULE**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preliminary schedule.

1.2 SUBMITTALS

- A. Within 10 days after date of 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. Submit in PDF format.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRELIMINARY SCHEDULE

- A. Prepare preliminary schedule in the form of a horizontal bar chart.

3.2 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify work of separate stages and other logically grouped activities.
- C. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- D. Coordinate content with schedule of values specified in Section 01 2000 - Price and Payment Procedures.
- E. Provide legend for symbols and abbreviations used.

END OF SECTION

**SECTION 01 4000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS

- A. Document 00 7200 - General Conditions: Inspections and approvals required by public authorities.

1.2 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Refer to 00 2115 - Supplemental Instructions to Bidders paragraph 2.1.6.1 for additional contractor qualification information.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- F. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- G. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.
- H. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

PART 2 PRODUCTS

2.1 REQUIREMENTS

- A. Comply with the requirements specified in Division 01 Product Requirements.

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
 - 2. Comply with the Contract Document requirements for Division 01 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

3.3 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.4 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.

END OF SECTION

**SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.

1.2 TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Electrical power and metering, consisting of connection to existing facilities.
 - 2. Water supply, consisting of connection to existing facilities.
- B. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.3 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.
- C. At end of construction, return facilities to same or better condition as originally found.

1.4 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.5 FENCING

- A. Construction: Contractor's option.

1.6 SECURITY

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

1.7 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Assigned existing parking areas may be used for construction parking.

1.8 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 6000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Administrative and procedural requirements for selection of products for use in Project
- B. Product delivery
- C. Manufacturers' standard special warranties on products
- D. Comparable products
- E. General product requirements.
- F. Re-use of existing products.
- G. Transportation, handling, storage and protection.
- H. Product option requirements.
- I. Substitution limitations.

1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.3 SUBMITTALS

- A. 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.

- B. 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.
- C. 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.
- D. Comparable Product Requests: Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - b. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - c. Evidence that proposed product provides specified warranty.
 - d. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 - e. Samples, if requested.
 - 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request.
 - a. Form of Approval: Comply with requirements specified in Division 01 "Administrative Requirements."
- E. Basis-of-Design Product Specification Submittal: Comply with requirements specified in Division 01 "Administrative Requirements." Show compliance with requirements.

1.4 COMPATIBILITY OF OPTIONS

- A. Comply with requirements in Division 01 Quality Requirements.
- B. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
 - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.5 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - a. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
 - b. Refer to Divisions 02 through 48 for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 "Execution and Closeout Requirements" and "Closeout Submittals."

PART 2 PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - a. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 1) Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 2) Where products are accompanied by the term "as selected," Architect will make selection.
 - 3) Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 - 4) Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 - 5) Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Product Requests" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures.

1. **Product:** Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
2. **Manufacturer/Source:** Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
3. **Products:** Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
4. **Manufacturers:** Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
5. **Available Products:** Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Product Requests" Article for consideration of an unnamed product.
6. **Available Manufacturers:** Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Product Requests" Article for consideration of an unnamed product.
7. **Product Options:** Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
8. **Basis-of-Design Product:** Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Product Requests" Article for consideration of an unnamed product by the other named manufacturers.
9. **Visual Matching Specification:** Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
10. **Visual Selection Specification:** Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.

2.2 EXISTING PRODUCTS

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

2.3 NEW PRODUCTS

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

2.4 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.

PART 3 EXECUTION

3.1 SUBSTITUTION LIMITATIONS

- A. See Section 01 2500 - Substitution Procedures.

3.2 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. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft.
- D. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- E. Deliver products to project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- F. Coordinate schedule of product delivery to designated prepared areas at project site in order to minimize long-term site storage time, overcrowding of construction spaces, and potential damage to stored materials.
- G. Transport and handle products in accordance with manufacturer's instructions.
- H. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- I. Promptly inspect shipments on delivery to ensure that products comply with requirements of the Contract Documents, quantities are correct, and products are properly protected and undamaged.
- J. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- K. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.3 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.
- B. Store and protect products in accordance with manufacturers' instructions.

- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration by the elements, above ground, with impervious sheet covering. Provide adequate ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection and measurement of quantity or counting of units. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
- L. Store materials in a manner that will not endanger Project structure.
- M. Store cementitious products and materials on elevated platforms.
- N. Store items subject to sun damage such as foam and, plastics away from exposure to sunlight, except to extent necessary for period of installation and concealment.
- O. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- P. Protect stored products and liquids from damage from freezing.
- Q. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

END OF SECTION

**SECTION 01 7000
EXECUTION AND CLOSEOUT REQUIREMENTS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Cutting and patching.
- C. Cleaning and protection.
- D. Substantial Completion.
- E. Final Completion.
- F. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.2 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. 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.
 - 6. Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include in request:
 - a. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - b. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - c. Identification of Project.
 - d. Location and description of affected work.
 - e. Necessity for cutting or alteration.
 - f. Description of proposed work and products to be used.
 - g. Effect on work of Owner or separate Contractor.
 - h. Written permission of affected separate Contractor.
 - i. Date and time work will be executed.

- j. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
- k. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
- l. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.
- m. Integrity of weather-exposed or moisture-resistant elements.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operating elements include the following:
- C. Life Safety Elements: Do not cut and patch life safety elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Life Safety Elements include the following:
- D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- F. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- G. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- H. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- I. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

- J. 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.
 - 1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.
 - 2. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.
- K. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
 - 1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
 - 2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
 - 3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.
- L. Pollution Control: 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. Comply with federal, state, and local regulations.

1.4 COORDINATION

- A. See Section 01 1000 for occupancy-related requirements.
- B. 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.
- C. Notify affected utility companies and comply with their requirements.
- D. 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.
- E. 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.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- H. 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.

1.5 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare and submit a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete. Additionally, attach a copy of work required for each room to the door entering the room. Subcontractor and Superintendent to initial as each Work item is completed. Attach supplemental lists as required.

2. Advise Owner of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases by applicable authorities having jurisdiction.
 5. Prepare and submit updated Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable. Obtain signed receipt of delivery from the Owner listing materials and quantities and submit to the Architect.
 7. Complete startup testing and balancing of building systems, submit final test & balance reports.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Submit changeover information related to Owner's occupancy, use, operation, and maintenance (including Operation & Maintenance Manuals).
 10. Complete final cleaning requirements, including touchup painting, floor waxing, buffing, sealing, etc.
 11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection Procedures: Submit a written request for inspection for Substantial Completion a minimum of seven (7) days in advance of the requested Substantial Completion inspection date. On receipt of request, Architect may notify Contractor of unfulfilled requirements. On date of inspection, Architect will conduct a review and either proceed with inspection or notify Contractor that the project is not Substantially Complete due to unfulfilled requirements.
1. Upon inspection the Architect and the Owner's representative will accompany the Contractor on a walk-through review of the Contractor's punch list. Should the Architect and/or the Owner's representative observe work which is incomplete or defective which is not included on the contractor's punch list, the Architect will prepare a supplemental punch list of items to be completed or corrected.
 2. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 3. Results of the completed inspection will form the basis of requirements for establishing Final Completion.

1.6 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Price and Payment Procedures".

2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Contractor. The certified copy of the list shall state that the Work, including each item on the list has been completed or otherwise resolved for acceptance. Provide explanations for each proposed resolution to incomplete items.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report and warranty.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videos. Obtain signed attendance sheets and submit them to the Architect.
- B. Inspection Procedures: Submit a written request for inspection for Final Completion, a minimum of (7) days in advance of the requested Final Completion Inspection Date. On receipt of request, Architect may notify Contractor of unfulfilled requirements. On date of inspection, Architect will conduct a review and either proceed with inspection or notify Contractor that the project is not Finally Complete due to unfulfilled requirements.
1. Upon Inspection the Architect and the Owner's representative will accompany the Contractor's superintendent on a walk-through review of the Substantial Completion punch list.
 2. Architect will process the final Application for Payment after inspection providing all closeout documentation has been received and is acceptable, or the Architect will notify Contractor of construction and/or documentation that must be completed or corrected before final Application for Payment will be processed.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit electronic copy of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order starting with exterior areas first and proceeding from lowest floor to highest floor.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Indicate the subcontractor responsible for each item; provide spaces for subcontractor and superintendent to initial each item as Work is completed.
 4. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.

1.8 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.
- E. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 PRODUCTS

2.1 PATCHING MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- C. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.
- D. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

2.2 CLEANING PRODUCTS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 EXECUTION

3.1 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.
- G. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
- H. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 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.
- D. Temporary Support: Provide temporary support of Work to be cut.
- E. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- F. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- G. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 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.

3.4 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. 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.
- C. 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.
- D. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials such as concrete and masonry using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.
- I. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 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.
 - 4. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.

5. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
6. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
7. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
8. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

3.5 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.6 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. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.
- G. 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.

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

3.7 ADJUSTING

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

3.8 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Use cleaning materials that are nonhazardous.
 - 2. 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.
 - 3. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
 - 4. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
 - 5. Clean filters of operating equipment.
 - 6. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
 - 7. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - 8. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
 - 9. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - 10. Remove snow and ice to provide safe access to building.
 - 11. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 12. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - 13. Sweep concrete floors broom clean in unoccupied spaces.
 - 14. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - 15. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.

16. Wipe surfaces of mechanical and electrical equipment, elevator equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
17. Replace parts subject to unusual operating conditions.
18. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
19. Clean ducts, blowers, and coils if units were operated without filters during construction.
20. Leave Project clean and ready for occupancy.

3.9 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Notify Architect/Engineer when work is considered ready for Architect/Engineer's Substantial Completion inspection.
- C. 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/Engineer's Substantial Completion inspection.
- D. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect/Engineer's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect/Engineer.
- E. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- F. Notify Architect/Engineer when work is considered finally complete and ready for Architect/Engineer's Substantial Completion final inspection.
- G. Complete items of work determined by Architect/Engineer listed in executed Certificate of Substantial Completion.

END OF SECTION

**SECTION 01 7800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.2 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Individual Product Sections: Specific requirements for operation and maintenance data.
- C. Individual Product Sections: Warranties required for specific products or Work.

1.3 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect/Engineer with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Addenda.
 - 3. Change Orders and other modifications to the Contract.
 - 4. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Field changes of dimension and detail.
 - 2. Details not on original Contract drawings.

3.2 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.3 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

3.4 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect/Engineer, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

3.5 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.

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- F. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- G. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

**SECTION 02 2225
ROOF DEMOLITION AND CLEANUP**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Selective demolition includes, but is not necessarily limited to, selective removal and subsequent off-site disposal of items indicated or noted on the drawings such as the following, which are not listed in any order of priority or sequence:
 - 1. Existing roof systems.
 - 2. Existing roof-related sheet metal.

1.2 SUBMITTALS

- A. Submit schedules, permits, and existing conditions documentation.
- B. Schedule indicating proposed sequence of operations for selective demolition work to Architect/ Engineer for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services as required, together with details for dust and noise control protection.
- C. Contractor is invited to submit photographs of existing conditions of structure, surfaces, equipment, and adjacent improvements that might be assumed as damage related to removal operations. File with Owner's representative prior to start of work.
- D. Permits and notices authorizing demolition, if required.

1.3 JOB CONDITIONS

- A. Occupancy: Owner will be continuously occupying areas of the building immediately adjacent to or beneath areas of selective demolition. Conduct selective demolition work in a manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities which will substantially impact Owner's normal operations.
- B. Conditions of Structure: Owner assumes no responsibility for actual condition of construction items to be demolished.
- C. Provide for the cleanup of excess materials, equipment, tools, construction debris, etc., as required to maintain the project site in a neat and orderly fashion.

1.4 PROTECTIONS

- A. Provide temporary barricades and other forms of protection as required to protect Owner's personnel and general public from injury due to selective demolition work.
- B. Provide protective measures as required to provide free and safe passage to Owner's personnel and general public to and from occupied portions of the building.
- C. Erect temporary covered passageways as required by authorities having jurisdiction.
- D. Protect from damage existing finish work that is to remain in place and/or becomes exposed during demolition operations.
- E. Protect floors and roofs with suitable coverings.

- F. Remove protections at completion of selective demolition work.
- G. Provide for the proper disposal of all existing materials designed to be removed in the specifications or on the drawings.

1.5 SCHEDULING

- A. Coordinate the roof preparation work with the new roofing work in such a manner as to keep the new insulation and roofing materials, building, and building interior absolutely dry and watertight.
- B. Coordinate all work with the Owner to minimize any disruptions of the Owner's operations.

1.6 DISPOSAL

- A. All debris shall be stored in containers approved by the Owner's Representative, and removed from the roof on a daily basis.
- B. Keep Owner's property clean of any construction debris.

1.7 MISCELLANEOUS

- A. Damages: Promptly repair damages caused to adjacent facilities by demolition work, at no cost to Owner.
- B. Traffic: Conduct selective demolition operations and debris removal in a manner to ensure minimum interference with streets, walks, parking facilities and other adjacent occupied or used facilities.
- C. Do not close, block or otherwise obstruct streets, walks or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- D. Utility Services: Maintain existing interior and exterior utilities not indicated to be removed or relocated, keep in service, and protect against damage during demolition operations. Do not interrupt existing utilities serving occupied or used facilities except when authorized in writing by authorities having jurisdiction.
- E. Owner reserves the right to claim salvage. Contractor shall stockpile identified materials for pickup by Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PREPARATION

- A. Cover and protect facilities to remain from soiling or damage when demolition work is performed.
- B. Provide appropriate temporary signage including signage for exit or building egress.
- C. Contractor shall restore to original condition any damage caused during work performed in this section.
- D. Keep roof surface clean of any debris that might prevent proper drainage.

- E. At start of each workday, drains located within daily work area shall be temporarily plugged to prevent debris from falling into the drain. Plugs to be removed at the end of each workday.

3.2 DEMOLITION

- A. Perform selective demolition work in a systematic manner. Use acceptable methods as required to complete demolition work indicated on the drawings in accordance with governing regulations.
- B. All debris shall be removed from the rib openings of metal decking, and the roof deck shall be broom cleaned prior to the start of new roof system installation.
- C. If unanticipated mechanical, electrical or structural elements which conflicts with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Architect/Engineer in written, accurate detail. Pending receipt of information from Architect /Engineer, rearrange selective demolition schedule as necessary to continue overall job progress without delay.

3.3 DISPOSAL OF DEMOLISHED MATERIALS

- A. Contractor may retain and remove from the premises items considered of salvageable value.
- B. Remove all other materials resulting from demolition operations, including debris and rubbish, from the building site. Transport and legally dispose of materials off site. Disposal of debris shall take place on a daily basis.
- C. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws and ordinances concerning removal, handling and protection against exposure or environmental pollution.
- D. Burning of materials will not be permitted on project site.

3.4 CLEAN UP

- A. Throughout the duration of the project, retain all stored materials and equipment in an orderly arrangement allowing maximum access, not impeding drainage or traffic and providing the required protection of materials.
- B. Weekly, and more often if necessitated by job conditions, Contractor shall inspect all arrangements of materials stored on site and restack, tidy and re-secure as required.
- C. Contractor shall clear the construction areas and shall provide for the removal from the project site of all their construction debris. Contractor shall not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work. Contractor shall provide storage of all items awaiting removal from the project site, observing all requirements for fire protection and protection of the surrounding site.
- D. Daily, and more often if necessitated by job conditions, Contractor shall inspect the site and pick up all scrap, debris, and waste material. Contractor shall remove such items promptly, leaving the construction area and site clean daily.
- E. Contractor shall be responsible to assure that subcontractors have properly removed and disposed of all debris relating to their contract.
- F. At least twice each month, and more often if directed by the Owner, Contractor shall completely remove all scrap, debris, and waste material from the project site. Contractor shall maintain the site in a neat and orderly condition at all times.

- G. At the completion of the contract, Contractor shall remove from the project site all equipment, tools, excess materials, etc., related to their contract. Contractor shall be responsible to assure that subcontractors have properly removed from the project site all equipment, tools, excess materials, etc., related to their contract.
- H. Contractor shall be responsible for returning all areas set aside for staging and storage to their original condition.
- I. Contractor shall repair damage and remove stains caused by work in this specification from walls, walkways, and driveways.

END OF SECTION

**SECTION 06 6105
ROUGH CARPENTRY - REROOFING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Work includes installing all wood nailers and plywood as required or indicated on the drawings. This shall also include removal and replacement of deteriorated nailers as directed by the Owner's Representative.

1.2 QUALITY ASSURANCE

- A. Qualifications of Workers: Provide sufficient workers and supervisors who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.
- B. Rejections: In acceptance or rejection of rough carpentry, the Owner will make no allowance for lack of skill on the part of workers.
- C. Standards for lumber shall comply with PS-20.
- D. Standards for plywood shall comply with PS-1.
- E. Grading Requirements
 - 1. All materials with nominal thickness of 3" or less shall be kiln dried. Moisture content shall not exceed 19%, or 15% for preservative pressure treated wood.
 - 2. Grade and trademark will be required on each piece of lumber (or bundle in bundled stock). Use only the recognized official marks of association under whose rules it is graded. Grade and trademarks will not be required if each shipment is accompanied by certificate of inspection issued by association.
 - 3. Lumber shall be sound, thoroughly seasoned and free from warp that cannot be corrected in process of bridging or nailing. Woodwork exposed to view on outside of building or in finished interior spaces shall be dressed.

1.3 SUBMITTALS

- A. Product Data:
 - 1. Most recent copy of manufacturer's literature applicable to products and specifications to be used.
 - 2. Complete material list of all items proposed to be furnished and installed under this section.

1.4 DELIVERY STORAGE AND HANDLING

- A. Store all materials up, off of the roof deck or ground, and covered with a weatherproof covering anchored sufficiently so as to resist wind blow-off.
- B. Keep all materials clearly identified with all grade marks legible. Keep all damaged material clearly identified as damaged and stored separately to prevent its inadvertent use.
- C. Do not allow installation of damaged or otherwise non-complying material.

- D. In the event of damage, immediately make all necessary repairs and replacements to the approval of and at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 NAILERS

- A. All nailers are to be No. 2 or better.
- B. Size to be as indicated on the drawings. Minimum size to be 1" x 4".
- C. Provide dressed lumber, S4S, unless otherwise indicated.

2.2 PLYWOOD

- A. All plywood is to be minimum ½", APA Rated Exterior, Structural 1. Only waterproof glue is acceptable.

2.3 FASTENERS

- A. All fasteners must be carbon steel with corrosion-resistant coating. Fasteners shall meet FM 4470.
- B. Masonry/Concrete Fasteners
 - 1. Corrosion-resistant, threaded fastener with low profile head.
 - 2. Fastener to be Factory Mutual approved.
 - 3. Approved Products
 - a. Tapcon Flat-Head Phillips by ITW Buildex
 - b. Confas by Construction Fasteners, Inc.
 - 4. Fasteners to be nominal ¼" thickness minimum and of sufficient length to penetrate into steel ½" and wood 1".
- C. Steel/Wood Fasteners
 - 1. Corrosion-resistant, self-tapping, self-drilling screw with low profile head.
 - 2. Fastener to be Factory Mutual approved.
 - 3. Approved Products:
 - a. Roof Grip by ITW Buildex with Climaseal Coating
 - b. Dekfast by Construction Fasteners, Inc., with Sentri Coating
 - c. Standard roofing fastener with CR-10 coating by Olympic Manufacturing Group, Inc.

PART 3 EXECUTION

3.1 NAILERS

- A. Nailers are to be installed as per detail drawings.
- B. Discard units of material with defects that might impair quality of work and units that are too small to use in fabricating work with minimum joints or optimum joint arrangement.

- C. Set nailers to required levels and lines with members plumb and true.
- D. All perimeter nailers shall be of uniform height within a given roof section.
- E. Nailers shall be anchored to resist a pull of 175 lbs./foot in any direction.
- F. Fasteners are to be spaced a maximum of 12" o.c. staggered.
- G. Nailers are to be installed with ¼" gap between ends of adjoining pieces.

3.2 PLYWOOD

- A. Plywood is to be installed as per detail drawings.
- B. Plywood joints must be true and well fitting, allowing for expansion and contraction. Allow 1/8" at end and edge joints.
- C. Plywood fasteners are to be a maximum grid pattern of 18" o.c.

3.3 CLEANUP

- A. Refer to Division 02 - ROOF DEMOLITION AND CLEANUP.

END OF SECTION

**SECTION 07 2200
ROOF AND DECK INSULATION**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cover board
- B. Rigid Board Insulation
- C. Foam Adhesive
- D. Fasteners and Plates
- E. Vapor Barrier

1.2 REFERENCES

- A. ASTM C165 Test Method for Measuring Compressive Properties of Thermal Insulation
- B. ASTM C208 Specification for Insulating Board (Cellulosic Fiber), Structural and Decorative
- C. ASTM C209 Methods of Testing Insulating Board (Cellulosic Fiber), Structural and Decorative
- D. ASTM C272 Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- E. ASTM C473 Test Methods for Physical Testing of Gypsum Board Products and Gypsum Lath
- F. ASTM C518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- G. ASTM C578-971a Specification for Preformed, Cellular Polystyrene Thermal Insulation
- H. ASTM C728 Specification for Perlite Thermal Insulation Board
- I. ASTM C1177 Specification for Glass Matt Gypsum Substrate for use as Sheathing
- J. ASTM C1289 Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
- K. ASTM D41 Specification for Asphalt Primer Used in Roofing and Waterproofing
- L. ASTM D1621 Test Method for Compressive Properties of Rigid Cellular Plastics
- M. ASTM D1622 Test Method for Apparent Density of Rigid Cellular Plastics
- N. ASTM D2126 Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
- O. ASTM D4601 Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing
- P. ASTM E96 Test Methods for Water Vapor Transmission of Materials
- Q. FM Factory Mutual Engineering Corporation - 1-90
- R. Data Sheet 1-28 Insulated Steel Deck

1.3 SYSTEM DESCRIPTION

A. UL Class "A" Rating

1. It is the intent of this specification to provide a roof system with a UL Class "A" Rating. The descriptions given below are general descriptions. The insulation, recovery board, and other components shall be as required by the membrane manufacturer to obtain a UL Class "A" Rating.

B. Provide tapered insulation sumps at all roof drains. Tapered insulation sump shall start with a thickness of one and one-half inch (1.5") at the drain bowl to the specified thickness two feet (2'-0") from the centerline of the drain. Insulation shall be secured as specified below.

C. The work of this project is identified as follows:

1. BID

- a. SEPCSD Jr. High School - Roof Levels Z (base bid) - Remove the existing roof system down to the existing metal deck. Install one (1) layer of peel and stick vapor barrier. Insulation shall consist of a tapered polyisocyanurate insulation sloped at a rate of one-eighth inch per foot (1/8"/ft.) with a starting thickness of two and a half inches (2.5"), mechanically fastening the two inch (2") base layer of insulation to the metal deck at a rate sufficient to meet the requirements of FM 1-90 but not less than eight (8) fasteners per 4x4 board. Adhere all remaining layers of the tapered polyisocyanurate insulation in a layer of foam adhesive to the base layer of insulation at a rate sufficient to meet the requirements of FM 1-90. Insulation joints shall be staggered a minimum of 1 ft. -0 in. in all layers and directions. Install tapered polyisocyanurate insulation crickets/saddles in a layer of foam adhesive as noted on Roof Plan directly under the cover board. Installation shall then consist of .25 inch (1/4") cover board, adhered in a layer of foam adhesive.
- b. SEPCSD Jr. High School - Roof Levels Z (base bid) - Remove the existing roof system down to the existing metal deck. Install one (1) layer of peel and stick vapor barrier. Insulation shall consist of a tapered polyisocyanurate insulation sloped at a rate of one-eighth inch per foot (1/8"/ft.) with a starting thickness of two and a half inches (2.5"), mechanically fastening the one and a half inch (1.5") base layer of insulation to the metal deck at a rate sufficient to meet the requirements of FM 1-90 but not less than eight (8) fasteners per 4x4 board. Adhere all remaining layers of the tapered polyisocyanurate insulation in a layer of foam adhesive to the base layer of insulation at a rate sufficient to meet the requirements of FM 1-90. Insulation joints shall be staggered a minimum of 1 ft. -0 in. in all layers and directions. Install tapered polyisocyanurate insulation crickets/saddles in a layer of foam adhesive as noted on Roof Plan directly under the cover board. Installation shall then consist of .25 inch (1/4") cover board, adhered in a layer of foam adhesive.

- c. SEPCSD Four Mile Elementary - Roof Level G (alternate bid) - Remove the existing roof system down to the existing metal deck. Insulation shall consist of a tapered polyisocyanurate insulation sloped at a rate of one-eighth inch per foot (1/8"/ft.) with a starting thickness of two inches (2.0"), Insulation joints shall be staggered a minimum of 1 ft. -0 in. in all layers and directions. Install tapered polyisocyanurate insulation crickets/saddles in a layer of foam adhesive as noted on Roof Plan directly under the cover board. Installation shall then consist of .25 inch (1/4") cover board, adhered in a layer of foam adhesive.
- d. SEPCSD High School - Roof Level L (base bid) - Remove the existing roof system down to the existing metal deck. Install one (1) layer of peel and stick vapor barrier. Insulation shall consist of a polyisocyanurate insulation) with a thickness of three inches (3.0"), mechanically fastening the base layer of insulation to the metal deck at a rate sufficient to meet the requirements of FM 1-90 but not less than eight (8) fasteners per 4x4 board. Adhere the one and a half inch (1.5") layer of the polyisocyanurate insulation in a layer of foam adhesive to the base layer of insulation at a rate sufficient to meet the requirements of FM 1-90. Insulation joints shall be staggered a minimum of 1 ft. -0 in. in all layers and directions. Install tapered polyisocyanurate insulation crickets/saddles in a layer of foam adhesive as noted on Roof Plan directly under the cover board. Installation shall then consist of .25 inch (1/4") cover board, adhered in a layer of foam adhesive.

1.4 SUBMITTALS

A. Manufacturer's Product Data:

- 1. Most recent copy of manufacturer's literature applicable to products and specifications to be used, including material characteristics, test data, installation recommendations, material safety data sheets (MSDS).

B. Manufacturer's Installation Instructions:

- 1. Most recent copy of manufacturer's installation instructions for applications detailing products and specifications to be used.

C. Shop Drawings

- 1. Submit manufacturer's shop drawings for tapered insulation systems. Shop drawings shall show board-by-board layout pattern of the tapered system and shall comply with the drainage pattern as indicated on the plans.
 - a. The responsibility of providing shop drawings for the tapered insulation system lies solely with the manufacturer of the tapered insulation system. Shop drawings by others will not be accepted.
 - b. Shop drawings shall include: Outline of roof, location of drains, scuppers, or gutters, complete board layout of tapered insulation components, thicknesses, and the average "R" value for the completed insulation system.
 - c. The roofing contractor shall verify all roof dimensions and drain locations and confirm same with the manufacturer prior for fabrication of tapered insulation.
- 2. Submit layout pattern for mechanical fasteners for the top layer of insulation that is fastened.

D. Samples:

1. Submit samples listed below, if specifically requested by the Engineer/Architect.
 - a. Sample of each insulation type.
 - b. Sample of each type of mechanical fastener and plate.
 - c. Sample of each type of vapor retarder.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all insulation materials in a manner to protect them from the wind, sun, and moisture damage prior to and during installation. Any insulation that has been exposed to any moisture shall be removed from the project site.
- B. Keep materials enclosed in a watertight, yet ventilated enclosure (i.e., tarpaulins).
- C. Store materials off of the ground. Any warped or broken insulation boards shall be removed from the site.
- D. Insulation packages shall be labeled to include manufacturer, material name, and production date.

1.6 TESTING

- A. Contractor shall have the manufacturer or an independent party acceptable to the manufacturer and Engineer/Architect conduct pullout-resistance test on gypsum and cementitious wood fiber decks to receive mechanically fastened insulation as specified herein.
- B. Pullout tests shall be conducted in accordance with the requirements of the membrane manufacturer, insulation manufacturer, and fastener manufacturer.
- C. The party conducting the pullout tests shall generate a report outlining the results of the tests. The reports shall be provided to the manufacturer, contractor, and Engineer/Architect.
- D. The party conducting the pullout tests shall notify Engineer/Architect in writing of any test that does not meet the manufacturer's requirements.

PART 2 PRODUCTS

2.1 APPROVED EQUIVALENT

- A. Contractor must submit any product not specified a minimum five days before the bid date to Engineer/Architect in order for product to be considered for approval. The Engineer/Architect will notify Contractor, in writing, of decision to accept or reject request.

2.2 INSULATION MATERIALS

- A. Polyisocyanurate
 1. Acceptable Manufacturers
 - a. Sarnatherm ISO
 - b. Firestone ISO 95
 - c. Carlisle HP-H Polyiso
 - d. Approved Equivalent

2. Insulation board shall meet the following requirements:
 - a. UL listed under Roof Systems
3. Physical Properties

<u>Property</u>	<u>Test Method</u>	<u>Specifications</u>
Dimensional Stability	ASTM D2126	2% max.
Compressive Strength	ASTM D1621	18 psi min.
Water Absorption	ASTM C209	1% max.
Vapor Permeability	ASTM E96	1 perm max.
Foam Core Density	ASTM D1622	2.0 pcf min.
R-Factor HR (sq. ft. per degree Fahrenheit per BTU) per inch thickness:	ASTM C518	5.6 (Design value)

2.3 COVER BOARD

A. Attachment with Adhesive

1. Gypsum board shall be one-quarter inch (1/4") "DensDeck Prime" by Georgia Pacific
2. Approved equivalent.

2.4 MECHANICAL FASTENERS FOR INSULATION MATERIALS

A. Mechanical Fasteners and Plates for Metal Deck (22-gauge)

1. Acceptable Manufacturers:
 - a. ITW Buildex
 - b. The Tru-Fast Corporation
 - c. Olympic Fasteners
 - d. Approved Equivalent
2. Requirements
 - a. Plates shall be three inches in diameter minimum and composed of galvanized steel.
 - b. Fastener and plates shall meet requirements of FM Standard 4470, passing the SRIU Corrosion Test Procedures - Kesternich DIN-50018 with 15% red rust allowable.
 - c. Fastener and plate shall be approved within applicable FM tested roof system.

B. Wood Components

1. Use Factory Mutual approved fasteners and fastening pattern to install wood blocking and nailers.

2.5 ADHESIVE FOAM

A. Adhered Insulation.

1. Adhesive shall be "OlyBond 500" by Elastomeric Roofing Systems, Inc., 50 Medina St., Loretto, MN, 55357. Telephone number 612-479-6690 or 800-403-7747.

2. 'Millennium Weather-Tite One Step Foamable Adhesive', Millennium Adhesive Products, Inc., 16855 Park Circle Drive, Chagrin Falls, Ohio 44023, Telephone Number 440-708-1212 or 888-564-9733, Fax 440-708-1211.
3. Firestone 'I.S.O. Twin Pack™' Insulation Adhesive by Firestone, 200 4th Ave. South, Nashville, TN 37201. Telephone Number Sales 800-428-4442, Technical 800-428-4511.
4. Carlisle Fleece Back Fast Bag in a Box Adhesive by Carlisle, PO Box 7000, Carlisle, PA 17013. Telephone Number 800-479-6832.
5. Sarnacol AD Board Adhesive by Sika Sarnafil, 100 Dan Road, Canton, MA 02021; Telephone: 800.457.2504.
6. Approved equivalent.

2.6 VAPOR BARRIER

A. Mechanically Fastened Insulation

1. Sarnavap 5000 E SA FR by Sika Sarnafil
 - a. Vapor barrier manufacturer's primer.
2. Approved equivalent
 - a. Vapor Barrier manufacturer's primer.

PART 3 EXECUTION

3.1 INSPECTION OF SURFACES

- A. Examine surfaces for adequate anchorage, foreign materials, moisture and other conditions which would adversely affect the roofing application and performance.
- B. The roofing contractor shall be responsible for preparing an adequate substrate to receive insulation.

3.2 INSTALLATION

A. Vapor Barrier

1. Apply primer to substrate surfaces at a rate required by manufacturer.
2. Apply one (1) layer of vapor barrier as required by the manufacturer.

B. Roof Insulation (General Requirements)

1. Insulation shall be laid in parallel courses with all joints staggered between courses.
2. Insulation shall be neatly fitted to all roof penetrations, projections and nailers with no gaps greater than 1/4-inch.
3. When more than one layer of insulation is used, joints shall be staggered a minimum of 1ft.-0 in. apart where possible with relation to the layer beneath, and each layer shall be fully attached to the roof deck in accordance with these specifications.
4. No more insulation shall be placed on the surface to receive roof membrane than can be covered with roofing membrane before the end of the day's work or before the onset of inclement weather.

5. Discard all damaged or broken insulation boards. Insulation shall be dry when installed and protected from weather during application. All materials which become wet or warped shall be removed from the site and replaced with new dry materials.
 6. Provide insulation saddles at all curbs.
 7. The practice of "glazing-in" insulation as a temporary roof is considered phased construction, and will not be accepted.
 8. Cut tapered insulation for final adjustments where insulation is thinnest. Dress down mismatches in surface greater than one-eighth inch (1/8").
- C. Attachment with Mechanical Fasteners
1. Approved insulation board shall be fully attached to the deck with an approved mechanical fastening system. At a minimum, the amount of fasteners shall be in accordance with manufacturer's recommendation for FM 1-90 approved system.
Otherwise, a minimum of one fastener per two square feet shall be installed.
 2. Filler pieces of insulation require at least two fasteners if size of insulation is less than four square feet.
 3. If insulation facer is damaged in application and/or under foot or cart traffic, refer to insulation manufacturer's recommendations for patching facer, or replace damaged insulation boards with new.
 4. Spacing pattern of fasteners shall be as per manufacturer's recommendations to meet the FM requirements. Placement of any fastener from edge of insulation board shall be a minimum of three inches, and a maximum of six inches.
 5. Minimum penetration into deck shall be as recommended by the fastener manufacturer. There is a one-inch (1") minimum for metal, wood, and structural concrete decks where not specified by the manufacturer. For gypsum and cement-wood fiber decks, penetration shall be determined from pull-out test results with a minimum penetration of one and one-half inches (1-1/2"). Contractor shall only use the required length of fastener needed to secure insulation into the top of the flutes.
- D. Attachment with Adhesive
1. Attachment of insulation to substrate with adhesive shall be as recommended by the insulation manufacturer. **Size of insulation board shall be 4' x 4' maximum. (4x8 sheets, cut down to 4x4, will not be allowed).**
 2. Embed roof insulation boards in adhesive. Lay in parallel courses. Butt each panel to adjoining panels. Carefully walk in each piece of insulation and continue to walk in and test for adhesion until adhesive has set and provided complete securement. Boards which can be lifted up without breaking are inadequately adhered and shall be reset in fresh moppings.
 3. If insulation facer is damaged in application and/or under foot or cart traffic, refer to insulation manufacturer's recommendations for patching facer, or replace damaged insulation boards with new.
 4. Required adhesion will not be achieved unless the insulation contacts the adhesive before it sets. Contact is best achieved by passing the loaded insulation cart over the row of insulation as it is being laid, taking insulation from the cart. Sufficient "walking in" will also result from the installer stepping on each square foot of surface before the adhesive sets, but the common practice of shoving each board in and kicking it in one place will not achieve acceptable adhesion. Adhesion will not occur at a later date but must be achieved as laid.

5. Cutting and fitting and trying around irregularities or protrusions shall be done before adhering insulation to the substrate.

END OF SECTION

SECTION 07 6200
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Provide sheet metal flashing systems, complete, in-place as detailed on the drawings and as specified herein. This section includes sheet metal flashing and trim in the following categories:
 - 1. Roof Drainage Systems
 - 2. Exposed Trim, Gravel Stops and Fascia
 - 3. Coping
 - 4. Metal Counterflashings

1.2 REFERENCES

- A. ASTM A446-91: Specification for Steel Sheet, Zinc Coated (Galvanized) by Hot Dip Process.
- B. ASTM B209-92: Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- C. FM (Factory Mutual): Loss Prevention Data Sheet 1 - 49.
- D. FS QQ-L-201: Specification for Lead Sheet.
- E. SMACNA: Architectural Sheet Metal Manual.

1.3 SYSTEM DESCRIPTION

- A. Pre-finished galvanized steel at all locations noted in drawings unless noted otherwise. Color shall be chosen by the Owner.

1.4 SUBMITTALS

- A. Manufacturer's Product Data
 - 1. Metal material characteristics and installation recommendations.
 - 2. Color chart for pre-finished metal. For acceptable manufacturers other than Petersen Aluminum Corporation, submit color chart prior to material ordering and/or fabrication so that equivalent colors to those specified can be approved.
- B. Shop drawings
 - 1. For manufactured and shop-fabricated gravel stops, fascias, copings, and all other sheet metal fabrications.
 - 2. Show profile, joint details, corner details, and types and locations of fasteners.
 - 3. Indicate type, gauge and finish of metal.

1.5 QUALITY ASSURANCE

A. Reference standards

1. Comply with details and recommendations of the latest edition of the Architectural Sheet Metal Manual for workmanship, methods of joining, anchorage, provisions for expansion, etc.
2. Factory Mutual Loss Prevention Data Sheet 1-49, Windstorm Resistance, 1-90 minimum.

1.6 WARRANTY

- A. Pre-finished metal material shall require a written **20-year** non-prorated warranty covering fade, chalking and film integrity. The material shall not show a color change greater than 5 NBS color units per ASTM D2244, or chalking excess of 8 units per ASTM D659. If either occurs, material shall be replaced per warranty at no cost to the Owner.
- B. The Contractor shall provide the Owner with a notarized written warranty assuring all sheet metal work, including caulking and fasteners, to be water-tight and secure for a period of **five years** from the date of final acceptance of the building. Warranty shall include all materials and workmanship required to repair any leaks that develop, and make good any damage to other work or equipment caused by such leaks or the repairs thereof. Refer to the sample warranty at the end of the roof membrane section.

PART 2 PRODUCTS

2.1 APPROVED EQUIVALENT

- A. Contractor must submit to the architect/engineer a minimum of five (5) days before the bid date any product not specified in order for product to be considered for approval. The architect/engineer will notify contractor, in writing, of decision to accept or reject request.

2.2 METAL FLASHING

A. Pre-finished Galvanized Steel

1. Acceptable Manufacturers.
 - a. ColorKlad as manufactured by Vincent Metals.
 - b. Pac-Clad as manufactured by Petersen Aluminum Corporation.
 - c. UnaClad as manufactured by Copper Sales, Inc.
 - d. Roofing membrane manufacturer supplied approved equivalent.
 - e. Approved equivalent.
2. Materials used to fabricate items including, but not limited to, scuppers, exposed trim, gravel stop, fascia, copings, counterflashings, and curb flashings shall have the following characteristics:
 - a. Material shall be 24 gauge (minimum) hot-dipped galvanized steel (AISI G90), primed and finished one side with 70% Kynar 500 resin based fluoropolymer coating 1.0 ± 0.1 mil dry film thickness.
 - b. A wash coat of 0.3 - 0.4 mil dry film thickness shall be applied to the reverse side.

- c. The pre-painted finished side shall be coated with a factory installed strippable film for protection of the finished surface during shipping, fabrication, and installation. Plastic film must be removed immediately after installation.
- d. Colors shall be chosen by the Owner.
- e. Thickness shall be 24 gauge (minimum) and shall increase in thickness as recommended by metal manufacturer as face height increases.

2.3 FASTENERS

- A. Stainless steel screws with EPDM washers of appropriate length and gauge, as recommended by metal manufacturer.
- B. Material fasteners shall match that of metal which it secures (i.e. for aluminum - aluminum fasteners, etc.)
- C. Fastening shall conform to Factory Mutual I-90 requirements or as stated on section details, whichever is more stringent.

2.4 SHEET METAL GRAVEL STOPS AND FASCIA

- A. Material as noted in details.
- B. Accessories: Joint covers, corners, supports, strip flashing at joinings, fastenings, and other accessories shall be included.

2.5 COPINGS, JOINT COVERS, AND COUNTERFLASHINGS

- A. Material as noted in details.
- B. Accessories: Joint covers, corners, supports, strip flashing at joinings, fastening, and other accessories shall be included.

2.6 TERMINATION BARS

- A. Shall be aluminum unless otherwise recommended by membrane manufacturers.
- B. Material shall be .125" x 1" (minimum) aluminum conforming to ASTM B221, mill finish. Bar shall have caulk cup as required.

2.7 FABRICATION, GENERAL

- A. Sheet Metal Fabrication Standard:
 - 1. Fabricate sheet metal flashing and trim to comply with recommendations of the latest edition of the Architectural Sheet Metal Manual that apply to the design, dimensions, metal, and other characteristics of the item indicated.
- B. Shop Fabrication:
 - 1. Comply with details shown to fabricate sheet metal flashing and trim that fit substrates and result in waterproof and weather-resistant performance once installed. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 2. Form exposed sheet metal work that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems.

C. Seams:

1. Space joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Provide joint details in compliance with the recommendations of the latest edition of the Architectural Sheet Metal Manual for the thickness, girth, and type of metal.

D. Dissimilar Metals:

1. Separate flashings from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contact with asphalt mastic or other permanent separation as recommended by manufacturer.

E. Attachment:

1. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of sheet metal exposed to public view.
2. Fabricate cleats and attachment devices from same material as sheet metal component being anchored or from compatible, noncorrosive metal recommended by sheet metal manufacturer.
3. Size cleats as recommended by the latest edition of the Architectural Sheet Metal Manual or sheet metal manufacturer for application but never less than thickness of metal being secured.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions under which sheet metal flashing and trim are to be installed and verify that Work may properly commence. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General:

1. Unless otherwise indicated, install sheet metal flashing and trim to comply with performance requirements, manufacturer's installation instructions, and the recommendations of the latest edition of the Architectural Sheet Metal Manual. Anchor units of Work securely in place by methods indicated, providing for thermal expansion of metal units; conceal fasteners where possible, and set units true to line and level as indicated. Install Work with laps, joints, and seams that will be permanently watertight and weatherproof.
2. Install exposed sheet metal Work that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance. Verify shapes and dimensions of surface to be covered before fabricating sheet metal.
3. Roof-Edge Flashing: Secure metal flashing at roof edges according to FM Loss Prevention Data Sheet 1-49 for specified wind zone.
4. In locations where roof perimeter fascia exceeds a vertical face height of 8", fascia shall be installed with formed angles in the face to add rigidity and reduce out of flat appearance. Where vertical face height exceeds 12", a minimum of two formed angles shall be provided.

5. Expansion Provisions: Provide for thermal expansion of exposed sheet metal Work. Space movement joints at maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions in Work cannot be used or would not be sufficiently weatherproof and waterproof, form expansion joints of intermeshing hooked flanges, not less than one inch deep, filled with mastic sealant (concealed within joints).
6. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate elastomeric sealant to comply with SMACNA standards. Fill joint with sealant.
7. Seams: Fabricate non-moving seams in sheet metal with flat-lock seams. Tin edges to be seamed, form seams, and solder.
8. Separations: Separate metal from noncompatible metal or corrosive substrates by coating concealed surfaces, at locations of contact, with asphalt mastic or other permanent separation as recommended by manufacturer.
 - a. Underlayment: Where installing stainless steel or aluminum directly on cementitious or wood substrates, install a slip sheet of red-rosin paper and a course of polyethylene underlayment.
 - b. Bed flanges of Work in a thick coat of roofing cement where required for waterproof performance.
9. Reglets: Install reglets to receive counterflashing according to the following requirement:
10. Counterflashings: Coordinate installation of counterflashings with installation of assemblies to be protected by counterflashing. Install counterflashings in reglets or receivers. Secure in a waterproof manner by means of snap-in installation and sealant, lead wedges and sealant, interlocking folded seam, or blind rivets and sealant. Lap counterflashing joints a minimum of 2 inches and bed with sealant.
11. Roof-Drainage System: Install drainage items fabricated from sheet metal, with straps, adhesives, and anchors recommended by SMACNA's Manual or the item manufacturer, to drain roof in the most efficient manner. Coordinate roof-drain flashing installation with roof-drainage system installation. Coordinate flashing and sheet metal item for steep-sloped roofs with roofing installation.
12. Equipment Support Flashing, Coordinate equipment support flashing installation with roofing and equipment installation. Weld or seal flashing to equipment support member.
13. Roof-Penetration Flashing: Coordinate roof-penetration flashing installation with roofing and installation of items penetrating roof. Install flashing as follows:
 - a. Seal and clamp flashing to pipes penetrating roof, other than lead flashing on vent piping.

3.3 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces, removing substances that might cause corrosion of metal or deterioration of finishes.
- B. Provide final protection and maintain conditions that ensure sheet metal flashing and trim Work during construction is without damage or deterioration other than natural weathering at the time of Substantial Completion.

END OF SECTION

SECTION 07 7537
PVC MEMBRANE ROOFING - FULLY-ADHERED

PART 1 GENERAL

1.1 WORK INCLUDES

- A. PVC sheet roofing attached with adhesive.
- B. Membrane flashings.
- C. Other accessories as required.
- D. Membrane manufacturer's warranty.

1.2 REFERENCES

- A. ASTM D570 - Test Method for Water Absorption of Plastics
- B. ASTM D638 - Test Methods for Tensile Properties of Plastics
- C. ASTM D1004 - Test Method for Initial Tear Resistance of Plastic Film and Sheet
- D. ASTM D1204 - Test Method for Linear Dimensional Changes of Non-Rigid Thermoplastic Sheet or Film at Elevated Temperature
- E. ASTM D2136 - Test Method for Coated Fabrics - Low Temperature Bend Test
- F. ASTM D2565 - Practice for Operating Xenon Arc-Type Light Exposure Apparatus With and Without Water for Exposure of Plastics
- G. ASTM D3045 - Practice for Heat Aging of Plastics Without Load
- H. ASTM D4434 - Specification for Poly (Vinyl Chloride) Sheet Roofing
- I. ANSI/UL 790 - Tests for Fire Resistance of Roof Covering Materials
- J. FM 1-49 - Factory Mutual Loss Prevention Data-Perimeter Flashing
- K. NRCA - NRCA Roofing and Waterproofing Manual

1.3 SYSTEM DESCRIPTION

- A. Fully-adhered 60 mil thick PVC (polyvinyl chloride) membrane meeting the requirements of Underwriters Laboratories Class A fire resistance rating for the installed slope.

1.4 SUBMITTALS

- A. Submit under the general provisions of these specifications.
- B. All submittals shall be subject to the Owner's review and approval.
- C. Manufacturer's Product Data:
 - 1. Most recent copy of manufacturer's literature applicable to products and specifications to be used, including material characteristics, test data, installation recommendations, material safety data sheet (MSDS), and complete flashing details of system. MSDS sheets shall be submitted directly to the Owner.
 - 2. Specimen copy of manufacturer's warranty.

- D. Manufacturer's Installation Instructions:
- E. Most recent copy of manufacturer's installation instructions for applicators detailing products and specifications to be used including procedures for installation of membrane and flashing.
- F. Manufacturer's Certificates:
 - 1. Copy of completed contractor's application form for manufacturer's warranty to be submitted to the Architect/Engineer at the same time as original is submitted to the membrane manufacturer.
 - 2. Copy of the contractor-submitted manufacturer's warranty form approved by the manufacturer. Note: The Contractor will not be permitted to start work until the approved warranty form is submitted to the Architect/Engineer.
- G. Shop Drawings:
 - 1. Roof Plan and Details: By submittal of a bid for this project, the Contractor certifies that the project plans and specifications have been reviewed, and that the proposed roof system will be installed in accordance with these plans and specifications. If, after award of contract and upon review of existing field conditions, the Contractor wishes to modify the roof plans and/or details, the proposed change shall be submitted as a shop drawing for review by the Architect/Engineer.
 - 2. Roof Insulation: Reference Section 07 2220 - Roof and Deck Insulation for requirements.
- H. Samples
 - 1. Provide samples listed below, if specifically requested by the Architect/Engineer.
 - a. PVC membrane.
 - b. Flashing membrane.
 - c. Membrane fastening strip.
 - d. Mechanical fastener and plate.
 - e. Fastening bar/strip.
 - f. Other membranes specified.
- I. Manufacturer's Field Services and Reports: Reference Division 01 for Quality Control for requirements.

1.5 QUALITY ASSURANCE

- A. Applicator shall be certified by manufacturer to install specified products.
- B. The entire installation of roofing, insulation, flashing and sheet metal work shall be of the quality required for acceptance by the membrane manufacturer to obtain the warranty specified in this section.
- C. Comply with the requirements of the regulatory agencies as specified herein.
- D. As an approved applicator, all items required by the membrane manufacturer in the installation of the manufacturer's system will be included in the work.
- E. The roofing contractor shall assure that all roofing materials (i.e., membrane, insulation, fasteners, asphalt, adhesives, sealants, etc.) are compatible with each other and the substrates which they will be in contact with.

1.6 QUALIFICATIONS

- A. Applicator:
1. Company specializing in performing the work of this section with a minimum of **SEVEN (7) years** documented experience.
 2. Company certified by the membrane manufacturer for a minimum of **FIVE (5) years** as an approved applicator of the products specified in this section.
 3. Company having workers trained by the membrane manufacturer. These trained workers shall perform the work.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store materials under provisions of Division 01.
- B. Deliver materials in sufficient quantity to allow continuity of work.
- C. Coordinate delivery of materials with Owner so that minimal interruption of Owner's operations occurs.
- D. Materials shall be stored in their original, tightly sealed containers or unopened packages, and shall be clearly labeled with the manufacturer's brand name and such identifying reference numbers as are appropriate. Deliver materials to job site on pallets. Do not stack pallets.
- E. Materials shall be stored in a neat, safe manner so as not to exceed allowable live load of the storage area. Contractor shall not load pallets of material onto the roof deck without approval from the Architect/Engineer prior to loading. Disperse materials on roof deck to avoid concentrated loading.
- F. Store materials in dry, protected areas in an upright position. Control temperature of storage areas in accordance with manufacturer's instructions. Protect materials from freezing.
- G. Follow manufacturer's guidelines for required temperatures of material prior to application.
- H. Any materials damaged in handling or storage are not to be used.
- I. The Contractor shall assume full responsibility for the protection and safekeeping of materials stored on Owner's premises.
- J. Store roll goods on ends only. Discard rolls which have been flattened, creased or otherwise damaged.
- K. Remove wet material from project site.
- L. Comply with fire and safety regulations.
- M. Splice cleaner and bonding adhesives are extremely flammable. Do not use near fire or flame or in unventilated areas. Dispense from UL approved containers and consult material safety data sheets for specific information.
- N. Do not allow the PVC membrane to come into direct contact with steam or steam source.
- O. Installation may continue in cold weather provided adhesives and sealants are stored at room temperature prior to application and used within a 4-hour period after being brought to the roof, if approved by the manufacturer.

1.8 JOB CONDITIONS

- A. Apply roofing in dry weather.
- B. If the newly constructed roof or existing insulation becomes wet due to rainstorms, faulty water cut-offs, or other reasons, the Contractor shall remove and dispose of all wet materials, dry the affected roof area, and reconstruct the roof in accordance with these specifications at no cost to the Owner.
- C. Coal tar base, oil base or plastic roof cements are not to be used in direct contact with steam or steam source.
- D. All bonding, splicing and sealing surfaces must be free of dirt, moisture and any other contaminants.
- E. The roof surface shall be free of ponded water, ice, snow, or algae prior to installing the new roof system.
- F. Ensure roof deck is structurally sound to support construction traffic. Notify Owner or Architect/Engineer immediately of any conditions that are not structurally sound.

1.9 SAFETY

- A. All application, material handling and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.
- B. Comply with federal, state, local and Owner fire and safety regulations.
- C. Advise Owner and Architect/Engineer whenever work is expected to be hazardous to Owner's operations or occupants.
- D. Maintain a crewman as a floor area guard whenever roof decking is being repaired or replaced.
- E. Maintain fire extinguisher within easy access whenever power tools, roofing kettles and torches are being used.

1.10 WARRANTY

- A. Provide warranty and guarantee under provisions of the general provisions of these specifications.
- B. Provide to the Owner the membrane manufacturer's **twenty (20) year** no-dollar limit material and workmanship warranty effective from the date of final acceptance by the Owner.
- C. The Contractor shall provide to the Owner a notarized written warranty assuring that all roofing work including caulking, flashing, and sheet metal to be watertight for a period of **five (5) years** from the date of final acceptance of the work. Warranty shall include all materials and workmanship required to repair any leaks that develop as a result of the work. Refer to sample provided at the end of this Section.

PART 2 PRODUCTS

2.1 APPROVED EQUIVALENT

- A. Contractor shall submit to the Architect/Engineer any product not specified a minimum of 5 days before the bid date in order for product to be considered for approval. The Architect/Engineer will notify Contractor, in writing, of decision to accept or reject request. Reference Division 01 for Substitution Submittal Requirements.

2.2 RELATED MATERIALS BY MEMBRANE MANUFACTURER

- A. PVC Membrane - .060 inch, fiberglass-reinforced. Color shall be as stated below.
 - 1. Acceptable Manufacturers
 - a. Sarnafil Roofing Systems - Sarnafil G410-L -White
 - 2. Requirements
 - a. Roofing system is classified by Underwriters Laboratories to meet the requirements of Class "A" Fire Resistance.
- B. Flashing Membrane
 - 1. Flashing membrane shall be as recommended and furnished by the membrane manufacturer.

PART 3 EXECUTION

3.1 PRE-INSTALLATION CONFERENCE

- A. Prior to the start of the roofing work a meeting will be held at the job site for the purpose of reviewing materials, methods, and procedures to facilitate proper and timely construction of the roof system. Reference Division 01 - Coordination and Meetings for requirements.

3.2 REFERENCE

- A. The current product specification guide published by the membrane manufacturer shall be considered part of this specification and shall be referred to for more specific application procedures regarding roofing insulation, membrane and base flashing. When a difference between this specification and the manufacturer's product specification guide is encountered, the provision which is most stringent shall govern.

3.3 INSPECTION OF SURFACES

- A. Examine surfaces for adequate anchorage, foreign materials, moisture, and other conditions which would adversely affect the roofing application and performance.
- B. The roofing contractor shall be responsible for preparing adequate surfaces to receive insulation, roofing and flashing.

3.4 APPLICATION - GENERAL

- A. Install in accordance with the accepted roofing manufacturer's written specifications and recommended details now on file in the Architect/Engineer's office.
- B. Protect building wall area with tarpaulins or other durable materials at staging and kettle areas.
- C. Roof surfaces shall be thoroughly dry before application of roofing.
- D. Inspection of the roofing shall be made by a responsible representative of the roofing manufacturer during application and after completion. Reference Division 01 for Quality Control requirements.
- E. Roofing insulation shall be dry when installed and shall be protected from the weather during installation. All materials which become wet shall be removed and replaced with new dry materials.

- F. Membrane shall be installed over membrane manufacturer approved insulation. Install recovery board as required by the membrane manufacturer although details on the plans may not show it.
- G. When application of roofing is begun, the total roofing system in that area shall be completed before the end of the day and before being wet by the elements.
- H. Install temporary water cut-offs at the completion of each day's work and remove upon resumption of the work. Any leaks and damage due to insufficient water cut-offs shall be repaired by the Contractor at no cost to the Owner.
- I. Precautions shall be taken to protect the membrane from puncture.
- J. If materials are stored on the roof, the materials will be protected from the existing roof.
- K. Special care will be taken to prevent distress on the building structure when handling materials for the project.

3.5 SEQUENCING/SCHEDULING

- A. Notify the Owner and Architect/Engineer 48 hours before the first day of construction.
- B. Install all base flashing and/or fascia system fasteners and metal work, at least throughout the anticipated working area, as soon as possible after any roofing application.

3.6 DECK PREPARATION

- A. The roof deck and existing roof construction must be structurally sound to provide support for the new roof system. Membrane manufacturer requires fastener pullout test to verify deck condition and fastener pullout values.

3.7 SUBSTRATE PREPARATION

- A. A proper substrate shall be provided to receive the membrane and fully adhered system.
- B. The roofing contractor shall inspect the substrate for defects such as excessive surface roughness, contaminated surfaces, structurally unsound substrates, etc., that will adversely affect the quality of work.
- C. The substrate shall be clean, smooth, dry, free from flaws, sharp edges, loose and foreign material, oil, and grease. Roofing shall not start until all defects have been corrected.

3.8 WOOD NAILERS

- A. Install continuous treated wood nailers at the perimeter of the entire roof and around roof projections and penetrations as specified on project drawings.
- B. Nailers shall be anchored to resist a minimum force of 175 pounds per lineal foot in any direction. Fastener spacing shall be a maximum of 3 feet on center. Fasteners shall be installed within 6 inches of each end. Spacing and fastener embedment shall conform to Factory Mutual Loss Prevention Data Sheet 1-49.
- C. Thickness shall be as required to match substrate or insulation height.
- D. Any existing woodwork that is to be reused shall be firmly anchored in place (shall resist a minimum force of 175 pounds per lineal foot in any direction) and free from rot. Only woodwork designated to be reused in detail drawings shall be left in place and all other woodwork shall be removed.

3.9 MEMBRANE INSTALLATION

- A. The surface of the insulation or substrate shall be inspected prior to installation of the roof membrane. The substrate shall be clean, dry and smooth with no excessive surface roughness, contaminated surfaces or unsound surfaces such as broken or delaminated insulation boards.

3.10 HOT-AIR WELDING OF LAP AREAS

A. General:

1. Adjacent sheets shall be welded in accordance with membrane manufacturer's written instructions. All side and end lap joints shall be hot-air welded. Lap area shall be a minimum of 3 inches wide when machine welding, and a minimum of 4 inches wide when hand welding.
2. Welding equipment shall be provided by or approved by membrane manufacturer. All mechanics intending to use the equipment shall have successfully completed a course of construction provided by a membrane manufacturer representative prior to welding.
3. All surfaces to be welded shall be clean according to membrane manufacturer's instructions and dry. No adhesive shall be present within the lap of welding.

B. Hand Welding:

1. Hand welded seams shall be completed in three stages. Equipment shall be allowed to warm up for at least one minute prior to start of welding.
2. The lap shall be tack welded every 3 feet to hold the material in place.
3. The back edge of the lap shall be welded with a thin, continuous weld to prevent loss of hot air during the final welding.
4. The hot-air nozzle shall be inserted into the lap, keeping the welding equipment at a 45 degree angle to the side lap. Once the proper welding temperature has been reached and the material starts to flow, the hand roller shall be applied at a tight angle to the welding gun and pressed lightly. For straight laps, the 1-1/2 inch wide nozzle shall be used. For corners and compound connections, the 3/4 inch wide nozzle shall be used.

C. Machine Welding:

1. Machine welded seams may be achieved by the use of membrane manufacturer's various automatic welding equipment. When using this equipment, the manufacturer's instructions shall be followed and local codes for electric supply, grounding, and overcurrent protection observed. The automatic welding machines require 218 to 230 volts at 30 amps. The use of a portable generator is recommended.
2. When welding sheets adhered with membrane manufacturer 2121 adhesive, 15-inch wide metal tracks must be used over the deck sheet and under the machines welder to prevent wrinkles.

D. Quality Control of Welded Seams:

1. All completed welded seams shall be checked after cooling for continuity using a rounded screwdriver or other suitable blunt object by the roofing contractor. Visible evidence that welding is proceeding acceptably is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of black material from the edge of completed joints. On-site evaluation of welded seams shall be made daily by the contractor at locations as directed by the owner's representative or membrane manufacturer's representative. Two-inch wide cross-sectional samples shall be taken three times a day minimum thorough completed seams. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the contractor at no extra charge to the Owner.

3.11 MEMBRANE FLASHINGS

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the project manager and membrane manufacturer. Approval shall be for specific locations on specific dates. If any water is allowed to enter under the new roofing due to incomplete flashings, the affected area shall be removed and replaced at the contractor's expense. Flashings shall be adhered to compatible, dry, smooth and solvent-resistance surfaces.

3.12 SHEET METAL WORK

- A. Counterflashings, copings and other perimeter or penetration metal work shall be properly fastened and sealed by the roofing contractor or others, and it shall be their responsibility to maintain this work in a watertight condition. Care should be taken to assure the membrane is not in contact with sharp edges and is not unsupported in an area greater than 1/4-inch.

3.13 MEMBRANE CLEAN-UP

- A. Clean the roof membrane in locations where handprints, footprints, general traffic grime, industrial pollutants, and environmental dirt are present. Clean the membrane by using a non-abrasive scrub pad with a non-abrasive soap and water. Then rinse the area completely with clean water. In heavily soiled locations clean the membrane with the manufacturer's cleaner used to clean the seams, however; this cleaner shall be used sparingly.
 1. Scrub Pads:
 - a. 3M - Doodlebug Pads
 - b. Carlisle Sanitary Maintenance Products - Scrub Pads 4072500
 2. Seam Cleaner:
 - a. Sika Sarnafil – Seam Cleaner
 - b. Approved Equivalent

3.14 MANUFACTURER'S WARRANTY INSPECTIONS

- A. Inspections shall be in accordance with Division 01 for Quality Control.
- B. After the work has started, an inspection shall be made by a field technical representative of the membrane manufacturer. The representative shall review materials, methods, and procedure to facilitate proper and timely construction of the roofing system. Upon completion of the inspection the contractor shall submit to the Architect/Engineer a written report of the field technical representative's findings.
- C. Upon completion of the installation, an inspection shall be made by a field technical representative of the membrane manufacturer to ascertain that the roofing system has been installed according to the manufacturer's current published specifications. Upon completion of the inspection, the Contractor shall submit to the Architect/Engineer a written report of the field technical representative's findings.

END OF SECTION

**SECTION 07 9200
JOINT SEALANTS**

PART 1 GENERAL

1.1 WORK INCLUDES

- A. Provide caulking and sealant systems for all joints shown on the drawings or as specified herein to provide a positive barrier against passage of air and moisture.
- B. Areas to be caulked and sealed include:
 - 1. All openings and joints as shown on the drawings, and all joints which normally require caulking, include but not being limited to the following:
 - a. Metal roof flashing.

1.2 REFERENCES

- A. ANSI/ASTM D1056 - Flexible Cellular Materials: Sponge or Expanded Rubber.
- B. ASTM C834 - Latex Sealing Compounds.
- C. FS TT-S-00227 - Sealing Compound: Elastomeric Type, Multi-Component.
- D. FS TT-S-00230 - Sealing Compound: Elastomeric Type, Single Component.
- E. FS TT-S-001543 - Sealing Compound: Silicone Rubber Base.
- F. SWI (Sealing and Waterproofers Institute) - Sealant and Caulking Guide Specifications.

1.3 SUBMITTALS

- A. All submittals shall be subject to Owner's review and approval.
- B. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, and color availability.
- C. Submit two sets of samples illustrating manufacturer's full range of colors for selection, if specifically requested by Architect/Engineer. Color to closely match color of surface to which it is applied.
- D. Submit manufacturer's installation instructions.
- E. Submit manufacturer's certificate that products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three years documented experience.
- B. Conform to Sealant and Waterproofing Institute and manufacturer's requirements for installation.

1.5 FIELD SAMPLES

- A. Construct field sample, ten lineal feet minimum, illustrating sealant type, color, and tooled surface.
- B. Locate where directed.

C. Accepted sample may remain as part of the work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original unopened packages with manufacturer's labels, instructions and product identification (and lot) numbers intact and legible.
- B. Store materials protected from the weather, in original containers or unopened packages, in accordance with manufacturer's instructions.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install solvent-curing sealants in enclosed building spaces.
- B. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.8 SEQUENCING AND SCHEDULING

- A. Coordinate the work of this Section with all sections referencing this Section.

PART 2 PRODUCTS

2.1 ONE-PART NON-SAG POLYURETHANE SEALANT

A. Materials

- 1. FS TT-S-00230C, ASTM C920, Type S, Type II - non-sag, Class A; color as selected.
- 2. Products
 - a. Chem-Calk 900; Bostik Construction Products Division.
 - b. Spec 300; Geocel Corporation.
 - c. Vulkem 116; Mameco International, Inc.
 - d. Dynatrol I; Pecora Corporation.
 - e. Sikaflex 1A; Sika Corporation.
 - f. Sonolastic NP 1; Sonneborn Building Products Division, Rexnord Chemical Products, Inc.

2.2 ACCESSORIES

- A. Backer Rod: Open cell polyurethane foam or closed cell polyethylene foam, compatible with sealant, sized and shaped to provide proper compression upon insertion in accordance with manufacturer's recommendations.
- B. Bond Breaker: Pressure sensitive adhesive polyethylene, TEFLON or polyurethane foam tape.
- C. Masking Tape: Pressure sensitive adhesive paper tape.

2.3 OTHER MATERIALS

- A. All other materials not specifically described but required for complete and proper caulking and installation of sealants, shall be first quality of their respective kinds, new, and as selected by the Contractor subject to the approval of the Architect/Engineer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and joint openings are ready to receive work and field measurements as shown on drawings and recommended by the manufacturer.
- B. Beginning of installation means installer accepts existing surfaces.

3.2 PREPARATION

- A. Clean and prime joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. All surfaces in contact with sealant shall be dry, sound, well-brushed, and wiped free from dust.
- D. Use solvent to remove oil and grease, wiping the surfaces with clean rags.
- E. Where surfaces have been treated, remove the surface treatment by wire brushing.
- F. Remove all laitance and mortar from the joint cavity.
- G. Verify that joint backing and release tapes are compatible with sealant.
- H. Protect elements surrounding the work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/2 the joint width, 1/4" minimum depth, 1/2" maximum depth, unless otherwise specifically allowed by sealant manufacturer. Avoid stretching, twisting, or braiding the backer rod.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Apply sealant under pressure with hand or power-actuated gun.
- G. Guns shall have nozzle of proper size and shall provide sufficient pressure to completely fill joints as designed.
- H. Thoroughly and completely mask all joints where the appearance of sealant on adjacent surfaces would be objectionable.
- I. Install the sealant in strict accordance with the manufacturer's recommendations, thoroughly filling all joints to the recommended depths.
- J. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- K. Tool joints concave.

3.4 CLEANING AND REPAIRING

- A. Remove masking tape immediately after joints have been tooled.
- B. Clean adjacent surfaces free from sealant as the installation progresses.
- C. Use solvent or cleaning agent as recommended by the sealant manufacturer.
- D. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.5 PROTECTION OF FINISHED WORK

- A. Protect finished installation under provision of Section 01500.
- B. Protect sealants until cured.

3.6 SCHEDULE

LOCATION	TYPE	COLOR
General exterior locations	Polyurethane, one-part non-sag	As selected

END OF SECTION