

CD REVIEW

**Project Manual
Including Specifications
for the Re-roofing of:**

Project: Partial Roof Replacement
North Junior High School
1212 29th Avenue North
St. Cloud, MN 56303

RSI Project # 24-9862-02

Date: November 15, 2024

Owner: St. Cloud Area School District #742
1201 2nd Street South
Waite Park, MN 56387

Project Architect: "For purposes of these
documents, insert 'architect/engineer'
wherever the word 'architect' appears."

Architect/Engineer: RSI Building Envelope
2400 Prior Avenue North
St. Paul, Minnesota 55113

Address all communications regarding this work to the architect/engineer at the address listed above.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of Minnesota.

_____ Date _____ Reg. No. 40940
William F. Waugh, P.E.

Section 00 01 01 & 00 01 05

This manual is project and building specific. Roof Spec, Inc., will not be responsible for use by the owner or any other party of the information contained in these specifications or the specifications themselves to design, review, or complete work on other projects and buildings.

TABLE OF CONTENTS

DIVISION 00 –PROCUREMENT AND CONTRACTING REQUIREMENTS

Section

00 01 01	Project Title Page
00 01 05	Certifications Page
00 01 10	Table of Contents
00 11 16	Invitation to Bid
00 31 00	Information Available to Bidders
00 41 00	Bid Form
00 41 14	Responsible Contractor and Certification of Compliance
00 43 36	Additional Subcontractors List
00 52 00	Contract Forms
00 60 00	Project Forms
00 72 00	General Conditions
00 73 00	Supplementary Conditions
00 73 43	Wage Rate Requirements

DIVISION 01 - GENERAL REQUIREMENTS

Section

01 11 00	Summary of Work
01 31 19	Progress Meetings
01 32 16	Construction Progress Schedule
01 32 26	Construction Progress Reporting
01 33 00	Submittal Procedures

01 35 23	Safety Requirements
01 45 16	Contractor's Quality Control
01 50 00	Temporary Facilities & Control
01 74 00	Cleaning and Waste Management
01 77 00	Project Closeout
01 78 00	Project Record Documents
01 78 36	Warranties

DIVISION 02 – EXISTING CONDITIONS

Section

02 41 19	Roof Demolition
----------	-----------------

DIVISION 05 - METALS

Section

05 01 30	Metal Deck Repair/Replacement
----------	-------------------------------

DIVISION 06 – WOOD, PLASTICS AND COMPOSITES

Section

06 10 53	Rough Carpentry
----------	-----------------

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

Section

07 22 16	Roof Board Insulation
07 53 23	Fully Adhered EPDM Roofing
07 62 00	Flashing & Sheet Metal

07 92 00 Sealants and Caulking

DIVISION 08 - OPENINGS

08 43 00 Aluminum Framed Storefront Windows

DIVISION 23 – HEATING, VENTILATING AND AIR CONDITIONING (HVAC)

Section

23 01 00 Mechanical Work

DIVISION 26 - ELECTRICAL

Section

26 01 00 Electrical Work

Section 00 11 16

INVITATION TO BID

PART 1 - GENERAL

1.01 Owner requests sealed proposals on re-roofing work as follows:

- A. Project: Partial Roof Replacement
North Junior High School
1212 29th Avenue North
St. Cloud, MN 56303
- B. Owner: St. Cloud Area School District #742
1201 2nd Street South
Waite Park, MN 56387
- C. Bids Due: 2:00 PM, December 12, 2024
- D. Place Due: St. Cloud Area School District #742
1201 2nd Street South
Waite Park, MN 56387
- E. Bid Opening: Public

1.02 Guided Tour of Existing Building:

- A. A guided tour of the existing building will be conducted for the purpose of allowing all invited bidders to examine the site of the proposed work. Attendance at the guided tour is mandatory on the part of all invited bidders. (See Section 00 31 00 - Information Available to Bidders.)

1.03 Bid Security

- A. Each bidder shall submit with his proposal a surety bond, payable to Owner, in the amount of 5% of bid. Surety must be authorized to do business in the State of the project location. Bid security to be guaranty that bidder will not withdraw bid without Owner's consent. Bids to be valid for 30 days.

1.04 Rejection:

- A. Owner reserves the right to reject any or all proposals and to re-advertise.

PART 2 AND 3 NOT USED

- END OF SECTION -

Section 00 31 00

INFORMATION AVAILABLE TO BIDDERS

PART 1 - GENERAL

1.01 Information Included:

- A. Requirements for prospective bidders regarding bid submission.
- B. Requirements for other pre-bid and post-bid submissions.

1.02 Related Work Specified Elsewhere:

- A. Invitation to Bid Section 00 11 16
- B. Bid Form Section 00 41 00
- C. General Conditions Section 00 72 00
- D. Supplementary Conditions Section 00 73 00
- E. Hazardous Materials/Disposal Section 01 11 00

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 General:

- A. Contract documents include invitation for bidders, information for bidders, proposals, specifications, drawings, and any addenda issued prior to bid due date.
- B. Bid herein, is furnished for the convenience of bidders and is not to be detached, filled out or executed.
- C. Comply with these instructions in submission of bids.

3.02 Bidders Representation:

- A. By making a bid, bidder represents that they have read and understands the contract documents.
- B. They further represent that they have inspected site of proposed work to ascertain any obstacles that might be encountered and other matters and conditions relevant to the work.

- C. Nature of work required demands thorough review of all drawings and specifications, and diligent and careful site inspection by all prospective bidders as a means of determining extent of work and conditions under which work is to be performed.
- D. A **guided tour** of the existing building will be conducted once only by a representative of the Owner for the purpose of allowing all bidders to examine the existing building on December 3, 2024 at 10:00 AM. All bidders shall meet at the main entrance of the facility. It is mandatory that all bidders attend this guided tour. Each Contractor should have appropriate subcontractors attend this tour as well. All questions, clarifications, etc., arising from this inspection of the existing building shall be put in writing and shall be delivered directly to the Architect/Engineer no later than 2:00 pm on the following day. All answers, clarifications, interpretations, etc., will be issued only in the form of a written addenda to the contract documents. This addenda will then be issued directly to all bidders holding sets of contract documents. No other access to the building will be permitted prior to contract award.
- E. Additional charges will not be considered for work which, prior to bidding, could reasonably be inferred as appropriate by examination of drawings and specifications, visiting site, and closely reviewing work as indicated above.
- F. All bidders must recognize that all disruptions of the existing facilities and operations shall be coordinated with the Architect/Engineer. Work shall be scheduled such that disruptions interfering with the Owner's normal operations shall be accomplished during the Owner's "non-working" hours. The bidder(s) shall include in their bid only "regular" employee time. If deemed necessary, the Owner will issue a change order for the difference in cost of regular time (included in base bid) and premium time, but not for additional overhead and profits.
- G. No oral interpretations will be made to any bidder as to meaning of contract documents.
- H. Make written requests for interpretations to the Architect/Engineer. See also item D. above.
- I. Any inquiry received seven (7) or more calendar days (168 hours) prior to time of opening of bids will be considered.
- J. Interpretations by Architect/Engineer will only be in the form of an addenda to contract documents.
- K. Addenda will be forwarded to all those holding a complete set of drawings and specifications.
- L. Bidder is responsible for inquiry as to number of addenda issued.

- M. All bids will be considered and contract let to successful bidder upon the basis of all such addenda, whether or not in fact received by him.

3.03 Bidding Procedures:

- A. Completion of Bid Proposal
1. Complete in duplicate.
 2. Fill in all blank spaces in ink or by typewriter.
 3. Initial any alteration, correction or deletion as approved by bidder, or in case of a corporate bidder, by duly authorized officer.
 4. Furnish signed certification explaining alterations.
 5. It is mandatory for each bidder to bid any and all alternates and unit prices.
 6. Include all labor, material and equipment for incorporation of alternate or unit prices into base bid construction according to drawings, schedules and specifications.
 7. Should alternate construction not result in a change in contract sum, enter "no change" in appropriate space on proposal form.
 8. State all prices in writing and in figures on bid form.
 9. In case of a difference in written words and figures, amount stated in writing governs.
 10. Do not stipulate in bid any conditions not contained in contract documents unless specifications indicate that alternative materials, equipment or methods will be considered. In this case, a space will be provided for such alternate.
 11. Owner will consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids.
 12. Any bid may be withdrawn prior to scheduled time for opening bids or authorized postponement thereof.
 13. Bids not acted upon by Owner within thirty (30) days after opening date may be withdrawn at bidder's option.
 14. Date bid form.
 15. Indicate addenda received - on bid form.
 16. Indicate attendance at guided tour - on bid form.
 17. Indicate completion time in calendar days - on bid form.
 18. Submit bid in duplicate on forms furnished.
- B. Substitutions
1. Bid only on materials, equipment and procedures specified.
 2. Certain types of equipment and kinds of materials are described in specifications by means of trade names and catalog numbers and/or manufacturer's names. Where this occurs it is not intended to exclude from consideration such types of equipment and kinds of materials bearing other trade names, catalog numbers and/or manufacturer's names, capable of accomplishing purposes of type of equipment or kinds of material specifically indicated.

3. Types of equipment and kinds of materials to be used if not specifically indicated in specifications, must be approved in writing by Architect/Engineer and be agreed upon by Owner prior to letting of contract.
4. No substitution will be allowed after letting of contract.
5. Conditional bids will not be accepted.

C. Voluntary Alternate Bids: Not Applicable.

D. Signing of Bids: Sign bid forms according to the following conditions as they may apply:

1. Attach a power of attorney to bid, if necessary, evidencing authority to sign bid in name of person for whom it is signed.
2. Sign bid for partnership by all partners or by attorney-in-fact.
3. If signed by an attorney-in-fact, attach power of attorney evidencing authority to sign.
4. Append correct corporate name to bid which is signed for a corporation.
5. Append written signature of president or other authorized officer of corporation below written or typewritten corporate name following the word "by".
6. If a bid by a corporation is manually signed by official other than president of corporation, attach a certified copy of resolution of board of directors evidencing authority of such official to sign.

E. Bid Security

1. Submit together with bidder's bid form, bid security in form of a certified check made payable to Owner in the amount of not less than 5% of total bid, or:
2. A bid bond on AIA form A310, in like amount, payable to Owner.
3. Surety company thereon must be duly authorized to do business in state of construction.
4. Bid security to guarantee that bidder will not, without consent of Owner, withdraw their bid.
5. Contractor to provide a 100% performance bond to include labor and materials as required by law and in form as set forth in specifications.
6. Owner will retain bid securities of three lowest responsible bidders no longer than 30 days after the opening of bids.
7. Owner will retain bid security of successful bidder until contract is executed.
8. Owner will return bid securities of unsuccessful bidders within ten (10) days after opening of bids.
9. Bidder agrees that if they default or refuse to enter into contract that Owner may retain their bid security as damages and may then enter into contract with another bidder or re-advertise.

- F. Submission of Bid Form
 - 1. Submit in duplicate.
 - 2. Submit to location stated in Invitation for Bidders.
 - 3. Submit not later than time indicated.
 - 4. Submit bid form together with bid security.
 - 5. Seal bids in an envelope addressed to Owner.
 - 6. On outside of envelope, type or print:
 - a. Name and address of bidder
 - b. Location of work and project description

3.04 Qualification of Bidders:

- A. Owner will make such investigation as they deem necessary to determine ability of bidder to perform the work.
- B. Bidder shall furnish to Owner all such information and data for this purpose as Owner may request. Bidder may submit such information in letter form with their bid, but not as part of same.
- C. Owner reserves the right to reject any bid if evidence submitted by, or investigation of, such bidder fails to satisfy Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work.

3.05 Consideration of Bids:

- A. Owner reserves the right, in the determination of the successful bidder, to consider not only the lowest bid, but also, ultimate economy as affected by cost of operation, maintenance, and repairs and any other reasonable factors in the best interest of the Owner.
- B. For the purpose of determining the lowest responsible bidder, the Owner reserves the right to accept or reject any or all additions/alternates to base bid.
- C. Additions/alternates (if included) may be accepted or rejected in any order.

3.06 State Excise and Use Tax:

- A. In submitting this bid, the bidder is understood to have included in the bid price the state excise and use tax on sales of all building materials, supplies and equipment to Contractors, sub-Contractors or builders for the erection of buildings or the alteration, repair or improvement of real property.

3.07 Submission of Post-bid Information:

- A. With contract, submit:
 - 1. Certificate of insurance (AIA form G705).

- B. Within ten (10) days after execution of contract, submit:
 - 1. A list of names of subcontractors and suppliers for Architect's/Engineer's review.
 - 2. A list of specific materials proposed for use.
 - 3. Schedule to accomplish work.
- C. No application for payment will be considered until required submittals in (A) and (B) above are received and approved by Architect/Engineer and Owner.

3.08 Time of Completion:

- A. Contractor shall indicate in their bid the number of consecutive calendar days within which all work will be completed. This will be considered in awarding the contract.
- B. All work is to begin after June 9, 2025, and be substantially complete by August 15, 2025.

3.09 Permits and Fees:

- A. The Contractor is responsible for securing and paying for all permits and inspection fees. Contact local building official regarding requirements. Fill out required forms and cooperate in fulfillment of their requirements.
- B. The prime contractor is required to pay subcontractors within 10 days of receipt of payment from the City or pay interest at a rate of 1.5% per month or any part of a month.

- END OF SECTION -

Section 00 41 00

BID FORM

Date:

To: St. Cloud Area School District #742
1201 2nd Street South
Waite Park, MN 56387
Attn:

Project: Partial Roof Replacement
North Junior High School
1212 29th Avenue North
St. Cloud, MN 56303

Submitted By: _____
(Contractor)

(Address)

(City, state, zip)

The undersigned, as bidder hereby proposes, and if this bid is accepted, agrees to enter into a contract with the Owner, to furnish all materials, labor, skill, tools, and equipment for the re-roofing work described in the drawings and specifications.

The bidder acknowledges receipt of addendum no.(s) _____ and acknowledges that they are familiar with the requirements, that their authorized representative has attended the guided tour of the existing facility, and that their bid is submitted in strict accordance with these requirements, and documents for the following sum:

For the total work of the project as set forth in these specifications and the contract drawings, the lump sum of:

Base Bid:
_____ Dollars (\$_____.)

Unit Pricing:
Replace existing insulation to match existing. \$ _____/Bd. Ft.

We have attended the guided tour of the existing facility: _____ Yes _____ No

If this bid is accepted, the bidder agrees to complete the work as specified no later than August 15, 2025, from the execution of the contract, subject to provisions of the contract and the specifications.

This bid is submitted after careful study of the plans and specifications, attendance at the guided tour and from a personal knowledge of the conditions, both surface and concealed, at the existing building, which knowledge was obtained from the undersigned's own sources of information and not from any official or employee of the Owner.

We have carefully reviewed Section 01 35 23, Safety Requirements, and hereby certify that our company meets or exceeds the requirements therein.

Accompanying this bid is the bid security required to be furnished by the contract documents, the same being subject to forfeiture in the event of default by the undersigned.

The undersigned agrees, if awarded the contract to obtain, execute and deliver to the Owner with the contract satisfactory "performance bond and labor and material payment bond" on AIA form A312, each in a sum equal to the full amount of the contract.

The undersigned does declare that this bid is made without improper connection with any other person or persons making a bid on this same contract and is in all respects fair and without collusion or fraud, and the undersigned does further declare that no person or persons interested therein or in the supplied or works to which it relates, will receive in any portion of the profits thereof.

It is understood and agreed that this bid cannot be withdrawn within thirty (30) days without the consent of the Owner and that said Owner has the right to accept or reject any or all bids.

_____ By _____
Legal name of person, firm or corporation

Address City State Zip

- END OF SECTION -

SECTION 00 41 14

ATTACHMENT A

RESPONSIBLE CONTRACTOR AND CERTIFICATION OF COMPLIANCE

PROJECT TITLE:

Minn. Stat. §16.285, Subd., 7, **IMPLEMENTATION.** any prime contractor or subcontractor that does not meet the minimum criteria in subdivision 3 or fails to verify it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project.

Minn. Stat. §16.285, Subd. 3. **RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA.** “Responsible contractor” means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:

1. The Contractor:
 - a. is in compliance with workers' compensation and unemployment insurance requirements;
 - b. is currently registered with the Department of Revenue and the Department of Employment and Economic Development if it has employees;
 - c. has a valid federal tax identification number or a valid Social Security number if an individual; and
 - d. has filed a certificate of authority to transact business in Minnesota with the secretary of state if a foreign corporation or cooperative.
 - e.
2. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity:
 - a. repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of \$25,000 or more within the three-year period;
 - b. has been issued an order to comply by the commissioner of labor and industry that has become final;
 - c. has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees;
 - d. has been found by the commissioner of labor and industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27;
 - e. has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or

- f. has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties.
3. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order.
4. The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office.
5. The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification.
6. The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions; and
7. All subcontractors that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. 1§16.285, Subd. 5. **SUBCONTRACTOR VERIFICATION.** A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project.

If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by

their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.

Minn.Stat. §16.285, Subd. 4. **VERIFICATION OF COMPLIANCE.** A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3 at the time that it responds to the solicitation document.

A contracting authority may accept a sworn statement as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. Failure to verify compliance with any one of the minimum criteria or a false statement under oath in a verification of compliance shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor

CERTIFICATION

By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:

- 1) My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. §16.285,**
- 2) I have included Attachment A and Attachment A-1 with my company’s solicitation response, and**
- 3) if my company is awarded a contract, I will also submit Attachment A-2 as required.**

Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

ATTACHMENT A-1

FIRST-TIER SUBCONTRACTORS LIST

PROJECT TITLE:

Minn. Stat. § 16C.285, Subd. 5. A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to the execution of a construction contract with each subcontractor.

FIRST-TIER SUBCONTRACTOR NAMES (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-1

By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:

All first-tier subcontractors listed on attachment A1 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.

Authorized Signature of Owner or Officer:

Printed Name:

Title:

Date:

Company Name:

END OF SECTION

Section 00 43 36

ATTACHMENT A-2

ADDITIONAL SUBCONTRACTORS LIST

PROJECT:

This form must be submitted to the Owner’s Project Manager within 14 days of retaining additional subcontractors that are not included in Attachment A-1, Section 00 41 14.

Minn. Stat. § 16C.285, Subd. 5. “...If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors...”

ADDITIONAL SUBCONTRACTOR NAMES (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

ADDITIONAL SUBCONTRACTOR NAMES (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-2	
<p>By signing this document I certify that I am an owner or officer of the company, and I swear under oath that: All additional subcontractors listed on Attachment A-2 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.</p>	
Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

- END OF SECTION -

Section 00 52 00

CONTRACT FORMS

PART 1 - GENERAL

1.01 AIA Documents:

A. The following documents are hereby made a part of this contract by reference.

AIA - A101 (2017)	Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum.
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AIA – A101 Exhibit A (2017)	Insurance and Bonds
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(Sample Copies Follow)

PART 2 AND 3 NOT USED

- END OF SECTION -

DRAFT AIA® Document A101™ - 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the « » day of « » in the year « »
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

« »
« »
« »
« »

and the Contractor:
(Name, legal status, address and other information)

« »
« »
« »
« »

for the following Project:
(Name, location and detailed description)

«»
«»

The Architect:
(Name, legal status, address and other information)

«Roof Spec, Inc.»
«2400 Prior Avenue N
St. Paul, MN 55113»

For the purpose of this document and all documents used in conjunction herewith, insert Consultant, Roof Spec, Inc. wherever the word architect appears.

The Owner and Contractor agree as follows.

It is agreed and understood that the Owner has contracted with the Contractor for the provision of roofing construction services as provided in this Agreement. It is agreed and understood that the Owner does not represent that it is knowledgeable in roofing work or other professional disciplines involving construction, and that the Owner is relying upon the Contractor to at all times perform its services with the professional skill and care consistent with that generally required by contractors in the construction industry and to comply with the requirements of this Agreement, and all applicable laws, codes, ordinances, rules, regulations and construction industry standards. The Owner and Contractor agree to cooperate with one another and to maintain a good working relationship during the Project.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101™-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

ELECTRONIC COPYING of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- [« »] The date of this Agreement.
- [« »] A date set forth in a notice to proceed issued by the Owner.
- [« »] Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)
- [« »]

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

- [« »] Not later than « » (« ») calendar days from the date of commencement of the Work.

[« »] By the following date: « »

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be «Zero Dollars and Zero Cents» (\$ «0.00»), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum: (Identify each allowance.)

Item	Price

§ 4.4 Unit prices, if any: (Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any: (Insert terms and conditions for liquidated damages, if any.)

« »

§ 4.6 Other: (Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

« »

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

«The Owner's Representative shall make progress payments on account of the Contract Sum to the Contractor as provided in the Contract Documents for the period ending the last day of each month as follows: Not later than 30 days following the end of the period covered by the Application for Payment, 95% of the portion of the Contract Sum properly allocable to labor, materials and equipment incorporated into the Work and 95% of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site or at some other location agreed upon in writing, for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner's Representative; and upon Substantial Completion of the Work, a sum sufficient to increase the total payments to 100% of the Contract Sum, less such amounts as the Construction Manager shall determine for all incomplete work and unsettled claims as provided in the Contract Documents. Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid when the Work has been completed, the Contract fully performed, and the Construction Manager has issued a Project Certificate for Payment. »

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the «last» day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the «last» day of the «following» month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than «thirty» («30») days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™-2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201-2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201-2017; and

.5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

«Five Percent (5%) »

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

« »

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

« »

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:

(Insert any other conditions for release of retainage upon Substantial Completion.)

« »

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

« »

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

« » % « »

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker. *(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)*

« »
« »
« »
« »

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

Arbitration pursuant to Section 15.4 of AIA Document A201–2017

Litigation in a court of competent jurisdiction

Other *(Specify)*

« »

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

« »

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

(Name, address, email address, and other information)

« »
« »
« »
« »
« »
« »

§ 8.3 The Contractor’s representative:

(Name, address, email address, and other information)

« »
« »
« »
« »
« »
« »

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™-2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201-2017, may be given in accordance with AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203-2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

« »

§ 8.7 Other provisions:

« »

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™-2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™-2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

(Insert the date of the E203-2013 incorporated into this Agreement.)

« »

- .5 Drawings

Number	Title	Date

- .6 Specifications

Section	Title	Date	Pages

- .7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

The Sustainability Plan:

Title	Date	Pages

Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

« »« »

(Printed name and title)

CONTRACTOR (Signature)

« »« »

(Printed name and title)

DRAFT AIA[®] Document A101[™] - 2017

Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the « » day of « » in the year « »
(In words, indicate day, month and year.)

for the following PROJECT:
(Name and location or address)

« »
« »

THE OWNER:
(Name, legal status and address)

« »« »
« »

THE CONTRACTOR:
(Name, legal status and address)

« »« »
« »

TABLE OF ARTICLES

- A.1 GENERAL
- A.2 OWNER'S INSURANCE
- A.3 CONTRACTOR'S INSURANCE AND BONDS
- A.4 SPECIAL TERMS AND CONDITIONS

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A201[™]-2017, General Conditions of the Contract for Construction.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

§ A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3 Required Property Insurance

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User Notes: (930431797)

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Document A201[™]-2017, General Conditions of the Contract for Construction. Article 11 of A201[™]-2017 contains additional insurance provisions.

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§ A.2.3.1 Unless this obligation is placed on the Contractor pursuant to Section A.3.3.2.1, the Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.2.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ A.2.3.1.1 **Causes of Loss.** The insurance required by this Section A.2.3.1 shall provide coverage for direct physical loss or damage, and shall not exclude the risks of fire, explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, design, specifications, workmanship, or materials. Sub-limits, if any, are as follows:
(Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss	Sub-Limit
----------------	-----------

§ A.2.3.1.2 **Specific Required Coverages.** The insurance required by this Section A.2.3.1 shall provide coverage for loss or damage to falsework and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. Sub-limits, if any, are as follows:
(Indicate below type of coverage and any applicable sub-limit for specific required coverages.)

Coverage	Sub-Limit
----------	-----------

§ A.2.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section A.2.3.1 or, if necessary, replace the insurance policy required under Section A.2.3.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 12.2.2 of the General Conditions.

§ A.2.3.1.4 **Deductibles and Self-Insured Retentions.** If the insurance required by this Section A.2.3 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.2.3.2 **Occupancy or Use Prior to Substantial Completion.** The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.2.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.2.3.3 **Insurance for Existing Structures**
 If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

§ A.2.4 **Optional Extended Property Insurance.**
 The Owner shall purchase and maintain the insurance selected and described below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. For each type of insurance selected, indicate applicable limits of coverage or other conditions in the fill point below the selected item.)

[] § A.2.4.1 **Loss of Use, Business Interruption, and Delay in Completion Insurance**, to reimburse the Owner for loss of use of the Owner's property, or the inability to conduct normal operations due to a covered cause of loss.

[] § A.2.4.2 **Ordinance or Law Insurance**, for the reasonable and necessary costs to satisfy the minimum requirements of the enforcement of any law or ordinance regulating the demolition, construction, repair, replacement or use of the Project.

[] § A.2.4.3 **Expediting Cost Insurance**, for the reasonable and necessary costs for the temporary repair of damage to insured property, and to expedite the permanent repair or replacement of the damaged property.

[] § A.2.4.4 **Extra Expense Insurance**, to provide reimbursement of the reasonable and necessary excess costs incurred during the period of restoration or repair of the damaged property that are over and above the total costs that would normally have been incurred during the same period of time had no loss or damage occurred.

[] § A.2.4.5 **Civil Authority Insurance**, for losses or costs arising from an order of a civil authority prohibiting access to the Project, provided such order is the direct result of physical damage covered under the required property insurance.

[] § A.2.4.6 **Ingress/Egress Insurance**, for loss due to the necessary interruption of the insured's business due to physical prevention of ingress to, or egress from, the Project as a direct result of physical damage.

[] § A.2.4.7 **Soft Costs Insurance**, to reimburse the Owner for costs due to the delay of completion of the Work, arising out of physical loss or damage covered by the required property insurance: including construction loan fees; leasing and marketing expenses; additional fees, including those of architects, engineers, consultants, attorneys and accountants, needed for the completion of the construction, repairs, or reconstruction; and carrying costs such as property taxes, building permits, additional interest on loans, realty taxes, and insurance premiums over and above normal expenses.

§ A.2.5 Other Optional Insurance.

The Owner shall purchase and maintain the insurance selected below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance.)

[« »] § A.2.5.1 **Cyber Security Insurance** for loss to the Owner due to data security and privacy breach, including costs of investigating a potential or actual breach of confidential or private information. *(Indicate applicable limits of coverage or other conditions in the fill point below.)*

« »

[« »] § A.2.5.2 **Other Insurance**
(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage

Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

§ A.3.1 General

§ A.3.1.1 **Certificates of Insurance.** The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 **Deductibles and Self-Insured Retentions.** The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 **Additional Insured Obligations.** To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.2.2 Commercial General Liability

§ 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 Dollars and Zero Cents » (\$ «1,000,000.00») each occurrence, « One Million Dollars and Zero Cents » (\$ «1,000,000.00») general aggregate, and « One Million Dollars and Zero Cents » (\$ «1,000,000.00») aggregate for products-completed operations hazard, providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal injury and advertising injury;
- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;

- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

- .1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
- .3 Claims for bodily injury other than to employees of the insured.
- .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
- .5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
- .8 Claims related to roofing, if the Work involves roofing.
- .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
- .10 Claims related to earth subsidence or movement, where the Work involves such hazards.
- .11 Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than «Five Hundred Thousand Dollars and Zero Cents» (\$ «500,000.00») per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than «One Hundred Thousand Dollars and Zero Cents» (\$ «100,000.00») each accident, «One Hundred Thousand Dollars and Zero Cents» (\$ «100,000.00») each employee, and «One Hundred Thousand Dollars and Zero Cents» (\$ «100,000.00») policy limit.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks

§ A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than «» (\$ «») per claim and «» (\$ «») in the aggregate.

§ A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than «» (\$ «») per claim and «» (\$ «») in the aggregate.

§ A.3.2.10 Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than «» (\$ «») per claim and «» (\$ «») in the aggregate.

§ A.3.2.11 Insurance for maritime liability risks associated with the operation of a vessel, if the Work requires such activities, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.2.12 Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate.

§ A.3.3 Contractor's Other Insurance Coverage

§ A.3.3.1 Insurance selected and described in this Section A.3.3 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

« »

§ A.3.3.2 The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.3.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

[« »] § A.3.3.2.1 Property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible, and the Owner shall be responsible for losses within the deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below:

(Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)

« »

[« »] § A.3.3.2.2 Railroad Protective Liability Insurance, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate, for Work within fifty (50) feet of railroad property.

[« »] § A.3.3.2.3 Asbestos Abatement Liability Insurance, with policy limits of not less than « » (\$ « ») per claim and « » (\$ « ») in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.

[« »] § A.3.3.2.4 Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.

[« »] § A.3.3.2.5 Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.

[« »] § A.3.3.2.6 Other Insurance
(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage

Limits

§ A.3.4 Performance Bond and Payment Bond

The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:

(Specify type and penal sum of bonds.)

Type

Penal Sum (\$0.00)

Payment Bond

Performance Bond

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

« »

Section 00 60 00

PROJECT FORMS

PART 1 - GENERAL

1.01 AIA Documents:

A. The following documents are hereby made a part of this contract by reference.

AIA - 310 (2010)	Bid Bond
AIA - A312 (2010)	Payment Bond
AIA - A312 (2010)	Performance Bond
AIA - G702 AIA - G703 (1992)	Application and Certification for Payment, and Continuation Sheet
AIA - G706 (1994)	Contractor's Affidavit of Payment of Debts and Claims
AIA - G706A (1994)	Contractor's Affidavit of Release of Liens
AIA - G707 (1994)	Consent of Surety Company to Final Payment

(Sample Copies Follow)

PART 2 AND 3 NOT USED

- END OF SECTION -

Bid Bond

CONTRACTOR:

(Name, legal status and address)

« »« »
« »

SURETY:

(Name, legal status and principal place of business)

« »« »
« »

OWNER:

(Name, legal status and address)

« »« »
« »

BOND AMOUNT: \$ « »

PROJECT:

(Name, location or address, and Project number, if any)

« »
« »
« »

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

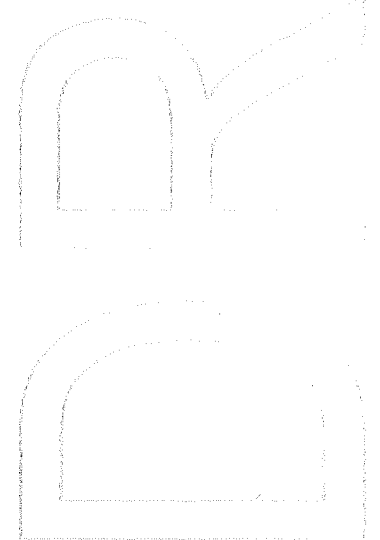
If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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Signed and sealed this « » day of « », « »

(Witness)

(Witness)

« »

(Contractor as Principal) (Seal)

« »

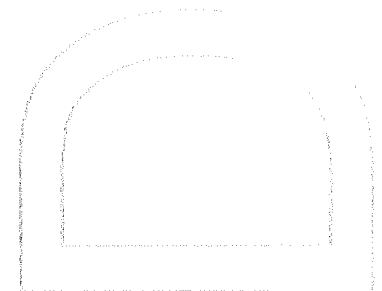
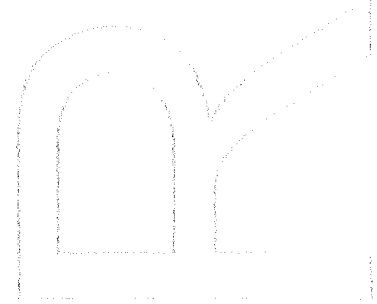
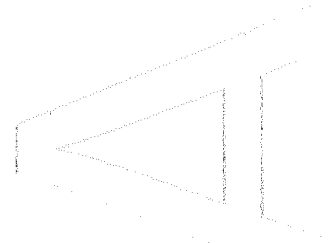
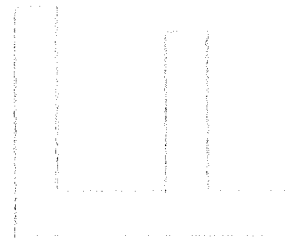
(Title)

« »

(Surety) (Seal)

« »

(Title)



DRAFT AIA® Document A312™ - 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

« »
« »

SURETY:

(Name, legal status and principal place of business)

« »
« »

OWNER:

(Name, legal status and address)

« »
« »

CONSTRUCTION CONTRACT

Date: «»

Amount: \$ «0.00»

Description:

(Name and location)

« »
«»

BOND

Date:

(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____

Name and « »

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

Signature: _____

Name and « »

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

« »
« »
« »

OWNER'S REPRESENTATIVE:

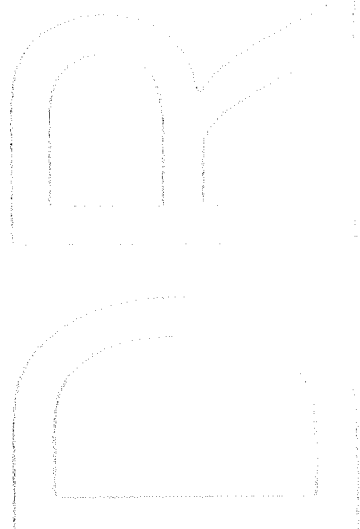
(Architect, Engineer or other party:)

« »
« »
« »
« »
« »
« »

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Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

« »

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature:

Name and Title:

« »« »

Address:

« »

Signature:

Name and Title:

« »« »

Address:

« »

DRAFT AIA[®] Document A312[™] - 2010

Performance Bond

CONTRACTOR:
(Name, legal status and address)

« »
« »

SURETY:
(Name, legal status and principal place of business)

« »
« »

OWNER:
(Name, legal status and address)

« »
« »

CONSTRUCTION CONTRACT

Date: « »
Amount: \$ «0.00»
Description:
(Name and location)

« »
« »

BOND

Date:
(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)

Signature: _____
Name and « »
Title:

(Any additional signatures appear on the last page of this Performance Bond.)

SURETY
Company: (Corporate Seal)

Signature: _____
Name and « »
Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

« »
« »
« »

OWNER'S REPRESENTATIVE:

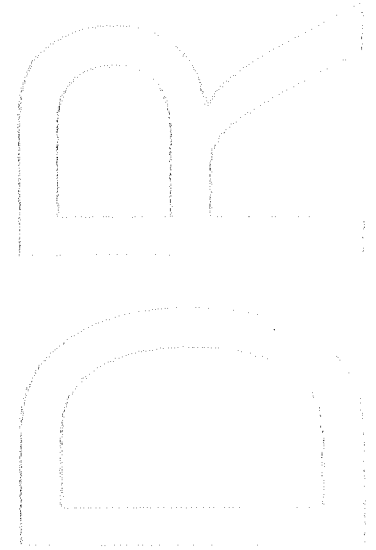
(Architect, Engineer or other party:)

« »
« »
« »
« »
« »
« »

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the

Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

« »

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____

Signature: _____

Name and Title: « »« »

Name and Title: « »« »

Address: « »

Address: « »

AIA[®] Document G702[™] - 1992

Application and Certificate for Payment

TO OWNER: PROJECT: _____

FROM CONTRACTOR: VIA ARCHITECT: _____

APPLICATION NO: _____

PERIOD TO: _____

CONTRACT FOR: _____

CONTRACT DATE: _____

PROJECT NOS: _____ / _____ / _____

Distribution to:

OWNER: ARCHITECT:

CONTRACTOR: FIELD:

OTHER:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

- 1. ORIGINAL CONTRACT SUM \$0.00
- 2. NET CHANGE BY CHANGE ORDERS \$0.00
- 3. CONTRACT SUM TO DATE (Line 1 ± 2) \$0.00
- 4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$0.00

5. RETAINAGE:

- a. 0 _____ % of Completed Work (Column D + E on G703) \$0.00
- b. 0 _____ % of Stored Material (Column F on G703) \$0.00

Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$0.00

- 6. TOTAL EARNED LESS RETAINAGE \$0.00
- (Line 4 Less Line 5 Total)

- 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$0.00
- (Line 6 from prior Certificate)

- 8. CURRENT PAYMENT DUE \$0.00

- 9. BALANCE TO FINISH, INCLUDING RETAINAGE \$0.00
- (Line 3 less Line 6)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

State of: _____

County of: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public: _____

My Commission expires: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

AIA[®] Document G703[™] - 1992

Continuation Sheet

AIA Document, G702[™]-1992, Application and Certification for Payment, or G736[™]-2009, Project Application and Project Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.

In tabulations below, amounts are in US dollars.

Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:
APPLICATION DATE:
PERIOD TO:
ARCHITECT'S PROJECT NO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		E THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G		H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)
			FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD			TOTAL COMPLETED AND STORED TO DATE (D + E + F)	% (G ÷ C)		
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	
GRAND TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	

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User Notes:

(3B9ADA4B)

DRAFT AIA[®] Document G706[™] - 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)* ARCHITECT'S PROJECT NUMBER: _____

TO OWNER: *(Name and address)* CONTRACT FOR: _____

CONTRACT DATED: _____

OWNER:
ARCHITECT:
CONTRACTOR:
SURETY:
OTHER:

STATE OF: _____
COUNTY OF: _____

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment Yes No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

BY: _____

(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires: _____

DRAFT AIA[®] Document G706A[™] - 1994

Contractor's Affidavit of Release of Liens

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input checked="" type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT FOR: CONTRACT DATED:	ARCHITECT: <input checked="" type="checkbox"/>
		CONTRACTOR: <input checked="" type="checkbox"/>
		SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

STATE OF:
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY:

(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

DRAFT AIA[®] Document G707[™] - 1994

Consent Of Surety to Final Payment

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

OWNER:

CONTRACT FOR:

ARCHITECT:

TO OWNER: *(Name and address)*

CONTRACT DATED:

CONTRACTOR:

SURETY:

OTHER:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

on bond of
(Insert name and address of Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

(Surety)

(Signature of authorized representative)

(Printed name and title)

Attest:
(Seal):

Section 00 72 00

GENERAL CONDITIONS

PART 1 - GENERAL

1.01 Standard Form AIA Document A-201, 2017 General Conditions of the Contract for Construction.

- A. "General Conditions of the Contract for Construction" standard AIA document A201, 2017 edition follows, and is hereby made a part of the contract documents, except as it may be amended by supplementary conditions, special conditions, special requirements and the specific provisions of the documents.
- B. Any article and/or portions of any article not amended by the supplementary conditions, special conditions, special requirements, and specifications for workmanship and materials shall remain in full effect.

PART 2 AND 3 NOT USED

- END OF SECTION -

DRAFT AIA® Document A201™ - 2017

General Conditions of the Contract for Construction

for the following PROJECT:
(Name and location or address)

« »
« »

THE OWNER:
(Name, legal status and address)

« »« »
« »

THE ARCHITECT:
(Name, legal status and address)

« »« »
« »

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 OWNER
- 3 CONTRACTOR
- 4 ARCHITECT
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
- 8 TIME
- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

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INDEX

(Topics and numbers in bold are Section headings.)

Acceptance of Nonconforming Work

9.6.6, 9.9.3, **12.3**

Acceptance of Work

9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, **12.3**

Access to Work

3.16, 6.2.1, 12.1

Accident Prevention

10

Acts and Omissions

3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 10.2.8, 13.3.2, 14.1, 15.1.2, 15.2

Addenda

1.1.1

Additional Costs, Claims for

3.7.4, 3.7.5, 10.3.2, 15.1.5

Additional Inspections and Testing

9.4.2, 9.8.3, 12.2.1, **13.4**

Additional Time, Claims for

3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, **15.1.6**

Administration of the Contract

3.1.3, **4.2**, 9.4, 9.5

Advertisement or Invitation to Bid

1.1.1

Aesthetic Effect

4.2.13

Allowances

3.8

Applications for Payment

4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5.1, 9.5.4, 9.6.3, 9.7, 9.10

Approvals

2.1.1, 2.3.1, 2.5, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10.1, 4.2.7, 9.3.2, 13.4.1

Arbitration

8.3.1, 15.3.2, **15.4**

ARCHITECT

4

Architect, Definition of

4.1.1

Architect, Extent of Authority

2.5, 3.12.7, 4.1.2, 4.2, 5.2, 6.3, 7.1.2, 7.3.4, 7.4, 9.2, 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, 13.4.1, 13.4.2, 14.2.2, 14.2.4, 15.1.4, 15.2.1

Architect, Limitations of Authority and Responsibility

2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, 9.4.2, 9.5.4, 9.6.4, 15.1.4, 15.2

Architect's Additional Services and Expenses

2.5, 12.2.1, 13.4.2, 13.4.3, 14.2.4

Architect's Administration of the Contract

3.1.3, 3.7.4, 15.2, 9.4.1, 9.5

Architect's Approvals

2.5, 3.1.3, 3.5, 3.10.2, 4.2.7

Architect's Authority to Reject Work

3.5, 4.2.6, 12.1.2, 12.2.1

Architect's Copyright

1.1.7, 1.5

Architect's Decisions

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.4, 9.9.1, 13.4.2, 15.2

Architect's Inspections

3.7.4, 4.2.2, 4.2.9, 9.4.2, **9.8.3**, 9.9.2, 9.10.1, 13.4

Architect's Instructions

3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.4.2

Architect's Interpretations

4.2.11, 4.2.12

Architect's Project Representative

4.2.10

Architect's Relationship with Contractor

1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.2, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.3.2, 13.4, 15.2

Architect's Relationship with Subcontractors

1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3

Architect's Representations

9.4.2, 9.5.1, 9.10.1

Architect's Site Visits

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4

Asbestos

10.3.1

Attorneys' Fees

3.18.1, 9.6.8, 9.10.2, 10.3.3

Award of Separate Contracts

6.1.1, 6.1.2

Award of Subcontracts and Other Contracts for Portions of the Work

5.2

Basic Definitions

1.1

Bidding Requirements

1.1.1

Binding Dispute Resolution

8.3.1, 9.7, 11.5, 13.1, 15.1.2, 15.1.3, 15.2.1, 15.2.5, 15.2.6.1, 15.3.1, 15.3.2, 15.3.3, 15.4.1

Bonds, Lien

7.3.4.4, 9.6.8, 9.10.2, 9.10.3

Bonds, Performance, and Payment

7.3.4.4, 9.6.7, 9.10.3, **11.1.2**, 11.1.3, **11.5**

Building Information Models Use and Reliance

1.8

Building Permit

3.7.1

Capitalization

1.3

Certificate of Substantial Completion

9.8.3, 9.8.4, 9.8.5

Certificates for Payment

4.2.1, 4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4, 15.1.4

Certificates of Inspection, Testing or Approval

13.4.4

Certificates of Insurance

9.10.2

Change Orders

1.1.1, 3.4.2, 3.7.4, 3.8.2.3, 3.11, 3.12.8, 4.2.8, 5.2.3, 7.1.2, 7.1.3, 7.2, 7.3.2, 7.3.7, 7.3.9, 7.3.10, 8.3.1, 9.3.1.1, 9.10.3, 10.3.2, 11.2, 11.5, 12.1.2

Change Orders, Definition of

7.2.1

CHANGES IN THE WORK

2.2.2, 3.11, 4.2.8, 7, 7.2.1, 7.3.1, 7.4, 8.3.1, 9.3.1.1, 11.5

Claims, Definition of

15.1.1

Claims, Notice of

1.6.2, 15.1.3

CLAIMS AND DISPUTES

3.2.4, 6.1.1, 6.3, 7.3.9, 9.3.3, 9.10.4, 10.3.3, 15, 15.4

Claims and Timely Assertion of Claims

15.4.1

Claims for Additional Cost

3.2.4, 3.3.1, 3.7.4, 7.3.9, 9.5.2, 10.2.5, 10.3.2, 15.1.5

Claims for Additional Time

3.2.4, 3.3.1, 3.7.4, 6.1.1, 8.3.2, 9.5.2, 10.3.2, 15.1.6

Concealed or Unknown Conditions, Claims for

3.7.4

Claims for Damages

3.2.4, 3.18, 8.3.3, 9.5.1, 9.6.7, 10.2.5, 10.3.3, 11.3, 11.3.2, 14.2.4, 15.1.7

Claims Subject to Arbitration

15.4.1

Cleaning Up

3.15, 6.3

Commencement of the Work, Conditions Relating to

2.2.1, 3.2.2, 3.4.1, 3.7.1, 3.10.1, 3.12.6, 5.2.1, 5.2.3, 6.2.2, 8.1.2, 8.2.2, 8.3.1, 11.1, 11.2, 15.1.5

Commencement of the Work, Definition of

8.1.2

Communications

3.9.1, 4.2.4

Completion, Conditions Relating to

3.4.1, 3.11, 3.15, 4.2.2, 4.2.9, 8.2, 9.4.2, 9.8, 9.9.1, 9.10, 12.2, 14.1.2, 15.1.2

COMPLETION, PAYMENTS AND

9

Completion, Substantial

3.10.1, 4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2, 15.1.2

Compliance with Laws

2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14.1.1, 14.2.1.3, 15.2.8, 15.4.2, 15.4.3

Concealed or Unknown Conditions

3.7.4, 4.2.8, 8.3.1, 10.3

Conditions of the Contract

1.1.1, 6.1.1, 6.1.4

Consent, Written

3.4.2, 3.14.2, 4.1.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3, 13.2, 15.4.4.2

Consolidation or Joinder

15.4.4

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

1.1.4, 6

Construction Change Directive, Definition of

7.3.1

Construction Change Directives

1.1.1, 3.4.2, 3.11, 3.12.8, 4.2.8, 7.1.1, 7.1.2, 7.1.3, 7.3,

9.3.1.1

Construction Schedules, Contractor's

3.10, 3.11, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2

Contingent Assignment of Subcontracts

5.4, 14.2.2.2

Continuing Contract Performance

15.1.4

Contract, Definition of

1.1.2

CONTRACT, TERMINATION OR SUSPENSION OF THE

5.4.1.1, 5.4.2, 11.5, 14

Contract Administration

3.1.3, 4, 9.4, 9.5

Contract Award and Execution, Conditions Relating to

3.7.1, 3.10, 5.2, 6.1

Contract Documents, Copies Furnished and Use of

1.5.2, 2.3.6, 5.3

Contract Documents, Definition of

1.1.1

Contract Sum

2.2.2, 2.2.4, 3.7.4, 3.7.5, 3.8, 3.10.2, 5.2.3, 7.3, 7.4, 9.1, 9.2, 9.4.2, 9.5.1.4, 9.6.7, 9.7, 10.3.2, 11.5, 12.1.2, 12.3, 14.2.4, 14.3.2, 15.1.4.2, 15.1.5, 15.2.5

Contract Sum, Definition of

9.1

Contract Time

1.1.4, 2.2.1, 2.2.2, 3.7.4, 3.7.5, 3.10.2, 5.2.3, 6.1.5, 7.2.1.3, 7.3.1, 7.3.5, 7.3.6, 7.7, 7.3.10, 7.4, 8.1.1, 8.2.1, 8.2.3, 8.3.1, 9.5.1, 9.7, 10.3.2, 12.1.1, 12.1.2,

14.3.2, 15.1.4.2, 15.1.6.1, 15.2.5

Contract Time, Definition of

8.1.1

CONTRACTOR

3

Contractor, Definition of

3.1, 6.1.2

Contractor's Construction and Submittal Schedules

3.10, 3.12.1, 3.12.2, 4.2.3, 6.1.3, 15.1.6.2

Contractor's Employees

2.2.4, 3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3, 11.3, 14.1, 14.2.1.1

Contractor's Liability Insurance

11.1

Contractor's Relationship with Separate Contractors and Owner's Forces

3.12.5, 3.14.2, 4.2.4, 6, 11.3, 12.2.4

Contractor's Relationship with Subcontractors
1.2.2, 2.2.4, 3.3.2, 3.18.1, 3.18.2, 4.2.4, 5, 9.6.2, 9.6.7, 9.10.2, 11.2, 11.3, 11.4

Contractor's Relationship with the Architect
1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5.1, 3.7.4, 3.10, 3.11, 3.12, 3.16, 3.18, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.4, 15.1.3, 15.2.1

Contractor's Representations
3.2.1, 3.2.2, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.8.2

Contractor's Responsibility for Those Performing the Work
3.3.2, 3.18, 5.3, 6.1.3, 6.2, 9.5.1, 10.2.8

Contractor's Review of Contract Documents
3.2

Contractor's Right to Stop the Work
2.2.2, 9.7

Contractor's Right to Terminate the Contract
14.1

Contractor's Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 9.2, 9.3, 9.8.2, 9.8.3, 9.9.1, 9.10.2, 9.10.3

Contractor's Superintendent
3.9, 10.2.6

Contractor's Supervision and Construction Procedures
1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.4, 7.3.6, 8.2, 10, 12, 14, 15.1.4

Coordination and Correlation
1.2, 3.2.1, 3.3.1, 3.10, 3.12.6, 6.1.3, 6.2.1

Copies Furnished of Drawings and Specifications
1.5, 2.3.6, 3.11

Copyrights
1.5, 3.17

Correction of Work
2.5, 3.7.3, 9.4.2, 9.8.2, 9.8.3, 9.9.1, 12.1.2, 12.2, 12.3, 15.1.3.1, 15.1.3.2, 15.2.1

Correlation and Intent of the Contract Documents
1.2

Cost, Definition of
7.3.4

Costs
2.5, 3.2.4, 3.7.3, 3.8.2, 3.15.2, 5.4.2, 6.1.1, 6.2.3, 7.3.3.3, 7.3.4, 7.3.8, 7.3.9, 9.10.2, 10.3.2, 10.3.6, 11.2, 12.1.2, 12.2.1, 12.2.4, 13.4, 14

Cutting and Patching
3.14, 6.2.5

Damage to Construction of Owner or Separate Contractors
3.14.2, 6.2.4, 10.2.1.2, 10.2.5, 10.4, 12.2.4

Damage to the Work
3.14.2, 9.9.1, 10.2.1.2, 10.2.5, 10.4, 12.2.4

Damages, Claims for
3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.3.2, 11.3, 14.2.4, 15.1.7

Damages for Delay
6.2.3, 8.3.3, 9.5.1.6, 9.7, 10.3.2, 14.3.2

Date of Commencement of the Work, Definition of
8.1.2

Date of Substantial Completion, Definition of
8.1.3

Day, Definition of
8.1.4

Decisions of the Architect
3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 6.3, 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4, 9.5.1, 9.8.4, 9.9.1, 13.4.2, 14.2.2, 14.2.4, 15.1, 15.2

Decisions to Withhold Certification
9.4.1, 9.5, 9.7, 14.1.1.3

Defective or Nonconforming Work, Acceptance, Rejection and Correction of
2.5, 3.5, 4.2.6, 6.2.3, 9.5.1, 9.5.3, 9.6.6, 9.8.2, 9.9.3, 9.10.4, 12.2.1

Definitions
1.1, 2.1.1, 3.1.1, 3.5, 3.12.1, 3.12.2, 3.12.3, 4.1.1, 5.1, 6.1.2, 7.2.1, 7.3.1, 8.1, 9.1, 9.8.1, 15.1.1

Delays and Extensions of Time
3.2, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, 8.3, 9.5.1, 9.7, 10.3.2, 10.4, 14.3.2, 15.1.6, 15.2.5

Digital Data Use and Transmission
1.7

Disputes
6.3, 7.3.9, 15.1, 15.2

Documents and Samples at the Site
3.11

Drawings, Definition of
1.1.5

Drawings and Specifications, Use and Ownership of
3.11

Effective Date of Insurance
8.2.2

Emergencies
10.4, 14.1.1.2, 15.1.5

Employees, Contractor's
3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3.3, 11.3, 14.1, 14.2.1.1

Equipment, Labor, or Materials
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2

Execution and Progress of the Work
1.1.3, 1.2.1, 1.2.2, 2.3.4, 2.3.6, 3.1, 3.3.1, 3.4.1, 3.7.1, 3.10.1, 3.12, 3.14, 4.2, 6.2.2, 7.1.3, 7.3.6, 8.2, 9.5.1, 9.9.1, 10.2, 10.3, 12.1, 12.2, 14.2, 14.3.1, 15.1.4

Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2, 10.4, 14.3, 15.1.6, 15.2.5

Failure of Payment
9.5.1.3, 9.7, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2

Faulty Work
(See Defective or Nonconforming Work)

Final Completion and Final Payment
4.2.1, 4.2.9, 9.8.2, 9.10, 12.3, 14.2.4, 14.4.3

Financial Arrangements, Owner's
2.2.1, 13.2.2, 14.1.1.4

GENERAL PROVISIONS

1

Governing Law

13.1

Guarantees (See Warranty)

Hazardous Materials and Substances

10.2.4, 10.3

Identification of Subcontractors and Suppliers

5.2.1

Indemnification

3.17, 3.18, 9.6.8, 9.10.2, 10.3.3, 11.3

Information and Services Required of the Owner

2.1.2, 2.2, 2.3, 3.2.2, 3.12.10.1, 6.1.3, 6.1.4, 6.2.5,

9.6.1, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2,

14.1.1.4, 14.1.4, 15.1.4

Initial Decision

15.2

Initial Decision Maker, Definition of

1.1.8

Initial Decision Maker, Decisions

14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5

Initial Decision Maker, Extent of Authority

14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5

Injury or Damage to Person or Property

10.2.8, 10.4

Inspections

3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,

9.9.2, 9.10.1, 12.2.1, 13.4

Instructions to Bidders

1.1.1

Instructions to the Contractor

3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.4.2

Instruments of Service, Definition of

1.1.7

Insurance

6.1.1, 7.3.4, 8.2.2, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 10.2.5, 11

Insurance, Notice of Cancellation or Expiration

11.1.4, 11.2.3

Insurance, Contractor's Liability

11.1

Insurance, Effective Date of

8.2.2, 14.4.2

Insurance, Owner's Liability

11.2

Insurance, Property

10.2.5, 11.2, 11.4, 11.5

Insurance, Stored Materials

9.3.2

INSURANCE AND BONDS

11

Insurance Companies, Consent to Partial Occupancy

9.9.1

Insured loss, Adjustment and Settlement of

11.5

Intent of the Contract Documents

1.2.1, 4.2.7, 4.2.12, 4.2.13

Interest

13.5

Interpretation

1.1.8, 1.2.3, 1.4, 4.1.1, 5.1, 6.1.2, 15.1.1

Interpretations, Written

4.2.11, 4.2.12

Judgment on Final Award

15.4.2

Labor and Materials, Equipment

1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,

5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1,

10.2.4, 14.2.1.1, 14.2.1.2

Labor Disputes

8.3.1

Laws and Regulations

1.5, 2.3.2, 3.2.3, 3.2.4, 3.6, 3.7, 3.12.10, 3.13, 9.6.4,

9.9.1, 10.2.2, 13.1, 13.3.1, 13.4.2, 13.5, 14, 15.2.8,

15.4

Liens

2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8

Limitations, Statutes of

12.2.5, 15.1.2, 15.4.1.1

Limitations of Liability

3.2.2, 3.5, 3.12.10, 3.12.10.1, 3.17, 3.18.1, 4.2.6,

4.2.7, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 9.6.8, 10.2.5, 10.3.3,

11.3, 12.2.5, 13.3.1

Limitations of Time

2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7,

5.2, 5.3, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3,

9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15,

15.1.2, 15.1.3, 15.1.5

Materials, Hazardous

10.2.4, 10.3

Materials, Labor, Equipment and

1.1.3, 1.1.6, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,

5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2,

10.2.1.2, 10.2.4, 14.2.1.1, 14.2.1.2

Means, Methods, Techniques, Sequences and

Procedures of Construction

3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2

Mechanic's Lien

2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8

Mediation

8.3.1, 15.1.3.2, 15.2.1, 15.2.5, 15.2.6, 15.3, 15.4.1,

15.4.1.1

Minor Changes in the Work

1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1, 7.4

MISCELLANEOUS PROVISIONS

13

Modifications, Definition of

1.1.1

Modifications to the Contract

1.1.1, 1.1.2, 2.5, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7,

10.3.2

Mutual Responsibility

6.2

Nonconforming Work, Acceptance of

9.6.6, 9.9.3, 12.3

Nonconforming Work, Rejection and Correction of
2.4, 2.5, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3, 9.10.4,
12.2

Notice

1.6, 1.6.1, 1.6.2, 2.1.2, 2.2.2., 2.2.3, 2.2.4, 2.5, 3.2.4,
3.3.1, 3.7.4, 3.7.5, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 7.4,
8.2.2 9.6.8, 9.7, 9.10.1, 10.2.8, 10.3.2, 11.5, 12.2.2.1,
13.4.1, 13.4.2, 14.1, 14.2.2, 14.4.2, 15.1.3, 15.1.5,
15.1.6, 15.4.1

Notice of Cancellation or Expiration of Insurance

11.1.4, 11.2.3

Notice of Claims

1.6.2, 2.1.2, 3.7.4, 9.6.8, 10.2.8, 15.1.3, 15.1.5, 15.1.6,
15.2.8, 15.3.2, 15.4.1

Notice of Testing and Inspections

13.4.1, 13.4.2

Observations, Contractor's

3.2, 3.7.4

Occupancy

2.3.1, 9.6.6, 9.8

Orders, Written

1.1.1, 2.4, 3.9.2, 7, 8.2.2, 11.5, 12.1, 12.2.2.1, 13.4.2,
14.3.1

OWNER

2

Owner, Definition of

2.1.1

Owner, Evidence of Financial Arrangements

2.2, 13.2.2, 14.1.1.4

Owner, Information and Services Required of the

2.1.2, 2.2, 2.3, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2,
9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2,
14.1.1.4, 14.1.4, 15.1.4

Owner's Authority

1.5, 2.1.1, 2.3.32.4, 2.5, 3.4.2, 3.8.1, 3.12.10, 3.14.2,
4.1.2, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3, 7.2.1,
7.3.1, 8.2.2, 8.3.1, 9.3.2, 9.5.1, 9.6.4, 9.9.1, 9.10.2,
10.3.2, 11.4, 11.5, 12.2.2, 12.3, 13.2.2, 14.3, 14.4,
15.2.7

Owner's Insurance

11.2

Owner's Relationship with Subcontractors

1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2

Owner's Right to Carry Out the Work

2.5, 14.2.2

Owner's Right to Clean Up

6.3

**Owner's Right to Perform Construction and to
Award Separate Contracts**

6.1

Owner's Right to Stop the Work

2.4

Owner's Right to Suspend the Work

14.3

Owner's Right to Terminate the Contract

14.2, 14.4

**Ownership and Use of Drawings, Specifications
and Other Instruments of Service**

1.1.1, 1.1.6, 1.1.7, 1.5, 2.3.6, 3.2.2, 3.11, 3.17, 4.2.12,
5.3

Partial Occupancy or Use

9.6.6, 9.9

Patching, Cutting and

3.14, 6.2.5

Patents

3.17

Payment, Applications for

4.2.5, 7.3.9, 9.2, 9.3, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1,
14.2.3, 14.2.4, 14.4.3

Payment, Certificates for

4.2.5, 4.2.9, 9.3.3, 9.4, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1,
9.10.3, 14.1.1.3, 14.2.4

Payment, Failure of

9.5.1.3, 9.7, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2

Payment, Final

4.2.1, 4.2.9, 9.10, 12.3, 14.2.4, 14.4.3

Payment Bond, Performance Bond and

7.3.4.4, 9.6.7, 9.10.3, 11.1.2

Payments, Progress

9.3, 9.6, 9.8.5, 9.10.3, 14.2.3, 15.1.4

PAYMENTS AND COMPLETION

9

Payments to Subcontractors

5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2

PCB

10.3.1

Performance Bond and Payment Bond

7.3.4.4, 9.6.7, 9.10.3, 11.1.2

Permits, Fees, Notices and Compliance with Laws

2.3.1, 3.7, 3.13, 7.3.4.4, 10.2.2

**PERSONS AND PROPERTY, PROTECTION OF
10**

Polychlorinated Biphenyl

10.3.1

Product Data, Definition of

3.12.2

Product Data and Samples, Shop Drawings

3.11, 3.12, 4.2.7

Progress and Completion

4.2.2, 8.2, 9.8, 9.9.1, 14.1.4, 15.1.4

Progress Payments

9.3, 9.6, 9.8.5, 9.10.3, 14.2.3, 15.1.4

Project, Definition of

1.1.4

Project Representatives

4.2.10

Property Insurance

10.2.5, 11.2

Proposal Requirements

1.1.1

PROTECTION OF PERSONS AND PROPERTY

10

Regulations and Laws
1.5, 2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 9.9.1,
10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14, 15.2.8, 15.4
Rejection of Work
4.2.6, 12.2.1
Releases and Waivers of Liens
9.3.1, 9.10.2
Representations
3.2.1, 3.5, 3.12.6, 8.2.1, 9.3.3, 9.4.2, 9.5.1, 9.10.1
Representatives
2.1.1, 3.1.1, 3.9, 4.1.1, 4.2.10, 13.2.1
Responsibility for Those Performing the Work
3.3.2, 3.18, 4.2.2, 4.2.3, 5.3, 6.1.3, 6.2, 6.3, 9.5.1, 10
Retainage
9.3.1, 9.6.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3
**Review of Contract Documents and Field
Conditions by Contractor**
3.2, 3.12.7, 6.1.3
Review of Contractor's Submittals by Owner and
Architect
3.10.1, 3.10.2, 3.11, 3.12, 4.2, 5.2, 6.1.3, 9.2, 9.8.2
Review of Shop Drawings, Product Data and Samples
by Contractor
3.12
Rights and Remedies
1.1.2, 2.4, 2.5, 3.5, 3.7.4, 3.15.2, 4.2.6, 5.3, 5.4, 6.1,
6.3, 7.3.1, 8.3, 9.5.1, 9.7, 10.2.5, 10.3, 12.2.1, 12.2.2,
12.2.4, 13.3, 14, 15.4
Royalties, Patents and Copyrights
3.17
Rules and Notices for Arbitration
15.4.1
Safety of Persons and Property
10.2, 10.4
Safety Precautions and Programs
3.3.1, 4.2.2, 4.2.7, 5.3, 10.1, 10.2, 10.4
Samples, Definition of
3.12.3
Samples, Shop Drawings, Product Data and
3.11, 3.12, 4.2.7
Samples at the Site, Documents and
3.11
Schedule of Values
9.2, 9.3.1
Schedules, Construction
3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2
Separate Contracts and Contractors
1.1.4, 3.12.5, 3.14.2, 4.2.4, 4.2.7, 6, 8.3.1, 12.1.2
Separate Contractors, Definition of
6.1.1
Shop Drawings, Definition of
3.12.1
Shop Drawings, Product Data and Samples
3.11, 3.12, 4.2.7
Site, Use of
3.13, 6.1.1, 6.2.1
Site Inspections
3.2.2, 3.3.3, 3.7.1, 3.7.4, 4.2, 9.9.2, 9.4.2, 9.10.1, 13.4

Site Visits, Architect's
3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4
Special Inspections and Testing
4.2.6, 12.2.1, 13.4
Specifications, Definition of
1.1.6
Specifications
1.1.1, 1.1.6, 1.2.2, 1.5, 3.12.10, 3.17, 4.2.14
Statute of Limitations
15.1.2, 15.4.1.1
Stopping the Work
2.2.2, 2.4, 9.7, 10.3, 14.1
Stored Materials
6.2.1, 9.3.2, 10.2.1.2, 10.2.4
Subcontractor, Definition of
5.1.1
SUBCONTRACTORS
5
Subcontractors, Work by
1.2.2, 3.3.2, 3.12.1, 3.18, 4.2.3, 5.2.3, 5.3, 5.4, 9.3.1.2,
9.6.7
Subcontractual Relations
5.3, 5.4, 9.3.1.2, 9.6, 9.10, 10.2.1, 14.1, 14.2.1
Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 7.3.4, 9.2, 9.3, 9.8,
9.9.1, 9.10.2, 9.10.3
Submittal Schedule
3.10.2, 3.12.5, 4.2.7
Subrogation, Waivers of
6.1.1, 11.3
Substances, Hazardous
10.3
Substantial Completion
4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2,
15.1.2
Substantial Completion, Definition of
9.8.1
Substitution of Subcontractors
5.2.3, 5.2.4
Substitution of Architect
2.3.3
Substitutions of Materials
3.4.2, 3.5, 7.3.8
Sub-subcontractor, Definition of
5.1.2
Subsurface Conditions
3.7.4
Successors and Assigns
13.2
Superintendent
3.9, 10.2.6
Supervision and Construction Procedures
1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3,
7.3.4, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.4
Suppliers
1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.5.4, 9.6,
9.10.5, 14.2.1

Surety
5.4.1.2, 9.6.8, 9.8.5, 9.10.2, 9.10.3, 11.1.2, 14.2.2,
15.2.7
Surety, Consent of
9.8.5, 9.10.2, 9.10.3
Surveys
1.1.7, 2.3.4
Suspension by the Owner for Convenience
14.3
Suspension of the Work
3.7.5, 5.4.2, 14.3
Suspension or Termination of the Contract
5.4.1.1, 14
Taxes
3.6, 3.8.2.1, 7.3.4.4
Termination by the Contractor
14.1, 15.1.7
Termination by the Owner for Cause
5.4.1.1, **14.2, 15.1.7**
Termination by the Owner for Convenience
14.4
Termination of the Architect
2.3.3
Termination of the Contractor Employment
14.2.2

TERMINATION OR SUSPENSION OF THE CONTRACT
14
Tests and Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,
9.9.2, 9.10.1, 10.3.2, 12.2.1, **13.4**
TIME
8
Time, Delays and Extensions of
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, **8.3, 9.5.1, 9.7,**
10.3.2, 10.4, 14.3.2, 15.1.6, 15.2.5
Time Limits
2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2,
5.2, 5.3, 5.4, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1,
9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15.1.2,
15.1.3, 15.4
Time Limits on Claims
3.7.4, 10.2.8, 15.1.2, 15.1.3

Title to Work
9.3.2, 9.3.3
UNCOVERING AND CORRECTION OF WORK
12
Uncovering of Work
12.1
Unforeseen Conditions, Concealed or Unknown
3.7.4, 8.3.1, 10.3
Unit Prices
7.3.3.2, 9.1.2
Use of Documents
1.1.1, 1.5, 2.3.6, 3.12.6, 5.3
Use of Site
3.13, 6.1.1, 6.2.1
Values, Schedule of
9.2, 9.3.1
Waiver of Claims by the Architect
13.3.2
Waiver of Claims by the Contractor
9.10.5, 13.3.2, **15.1.7**
Waiver of Claims by the Owner
9.9.3, 9.10.3, 9.10.4, 12.2.2.1, 13.3.2, 14.2.4, **15.1.7**
Waiver of Consequential Damages
14.2.4, 15.1.7
Waiver of Liens
9.3, 9.10.2, 9.10.4
Waivers of Subrogation
6.1.1, **11.3**
Warranty
3.5, 4.2.9, 9.3.3, 9.8.4, 9.9.1, 9.10.2, 9.10.4, 12.2.2,
15.1.2
Weather Delays
8.3, 15.1.6.2
Work, Definition of
1.1.3
Written Consent
1.5.2, 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.10.3,
13.2, 13.3.2, 15.4.4.2
Written Interpretations
4.2.11, 4.2.12
Written Orders
1.1.1, 2.4, 3.9, 7, 8.2.2, 12.1, 12.2, 13.4.2, 14.3.1

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™-2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk

and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These

obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological 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 or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 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. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and

other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 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. 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.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent

acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise

such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award 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. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 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 prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. 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, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials

and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. 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.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 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 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, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and 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, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance 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 the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings

against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property

(other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to

provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner

shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for

correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker

and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

Section 00 73 00

SUPPLEMENTARY CONDITIONS OF THE CONTRACT

The following supplements modify, change, delete from or add to the “General Conditions of the Contract for Construction”, AIA document A201, 2017. Where any article of the general conditions is modified or any paragraph, subparagraph or clause thereof is modified or deleted by these supplementary conditions, the unaltered provisions of that article, paragraph, subparagraph shall remain in full effect.

ARTICLE 1

“General Provisions”

Add to Article 1, General Provisions, the following:

- 1.2.4 In the event of conflicts or discrepancies among the contract documents, interpretations will be based on the following priorities: (1) The Standard Form of Agreement Between Owner and Contractor; (2) Change orders and supplemental instructions; (3) Addenda, with those of later date have precedence over those of earlier date; (4) The supplementary conditions; (5) The General Conditions of the Contract for Construction; and (6) Drawings and specifications

Note: in case of an inconsistency between drawings and specifications or within either document not clarified by addendum, the better quality or greater quantity of work shall be provided.

ARTICLE 2

“Owner”

Add to Article 2, Owner, the following:

- 2.2.6 Communication between the Owner and the Contractor shall be by the Contractor’s superintendent through the Architect/Engineer’s representative.

2.5 OWNERS REPRESENTATION

- 2.5.1 Owner represents to the Contractor that the roof deck, walls or other structures extending above the roof deck, which will be utilized to secure the roof system, are in sound, weight-bearing condition, sufficient for the purposes of the work unless noted in specific areas on the Roof Plan. (See Specification Section 01 11 00, Section III, Deck Repair/Replacement, paragraph B.)

ARTICLE 3

“Contractor”

Add to Article 3, Contractor, the following:

- 3.1.4 The operations of the Owner cannot be interrupted or disturbed except on an approved scheduled basis, the Contractor shall restrict his operations, including the storage of equipment and materials, to those areas designated by the Owner.
- 3.4.4 The Contractor shall deliver, handle, store and install materials in accordance with the more restrictive of the manufacturer’s instructions or contract documents.
- 3.4.5 The Contractor shall be responsible for the security of all materials and equipment used in the performance of the work.
- 3.4.6 After the contract has been executed, the Owner and Architect/Engineer will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the general requirements of the specifications (Division 1).
- 3.4.7 By making requests for substitutions based on clause 3.4.6 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 that specified; (3) Certifies that the cost data presented is complete and includes all related costs under this contract but excludes costs under separate contracts, and excludes the Architect’s/Engineer’s 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.
- 3.13.1 The Contractor shall take special care to prevent damage to grass, shrubbery, trees and other site improvements. The Contractor shall replace any damaged items caused by the operations of this project to the satisfaction of the Owner and without any additional cost to the Owner.

ARTICLE 4

“Architect”

Add to Article 4, Architect, the following:

4.0 ARCHITECT/ENGINEER

- 4.0.1 There is no Architect on this project. Instead, Roof Spec, Inc. (the “Architect/Engineer”) has been retained by the Owner to perform the administrative duties which are usually performed by the Architect hereunder. Wherever in this document the word “Architect” appears it should be replaced by the words “Architect/Engineer”. The term Architect/Engineer means the Architect/Engineer or the Architect’s/Engineer’s authorized representative.

ARTICLE 8

“Time”

Add to Article 8, Time, the following:

- 8.1.5 All 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; as to all acts or failures to act occurring subsequent 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 the date of issuance of the final certificate for payment.

ARTICLE 9

“Payments and Completion”

Add the following sentence to subparagraph 9.3.1:

The form of application for payment shall be a notarized, if required, AIA document G702, Application and Certificate for Payment supported by AIA document G703, Continuation Sheet (1992).

Add the following clause to subparagraph 9.3.1:

- 9.3.1.1 Until substantial completion, the Owner shall make progress payments in the amount of ninety per cent (95%) of the amount due the Contractor.

Add the following clause to subparagraph 9.10.1:

- 9.10.1.1 Any payment application after substantial completion shall be sufficient to increase the total payment to one hundred percent (100%) of the contract sum, less such amounts as the Owner and Architect/Engineer shall determine for incomplete work and unsettled claims.

ARTICLE 11

“Insurance and Bonds”

Add to Article 11, Insurance and Bonds, the following:

- 11.1.2 The insurance required shall be written for not less than the following, or greater if required by law:
 - 11.1.2.1 Workers Compensation
 - a. Statutory
 - b. Employer’s liability: \$100,000/each accident
 - 11.1.2.2 Comprehensive general liability (including premises operations; independent Contractor’s protective; products and completed operations; broad form property damage):
 - a. Bodily Injury: \$1,000,000 each occurrence
\$1,000,000 aggregate, products, & completed operations.
 - b. Property Damaged: \$1,000,000 each occurrence
\$1,000,000 aggregate
 - c. Products and completed operations insurance shall be maintained for a minimum period of two (2) years after final payment and Contractor shall continue to provide evidence of such coverage to Owner on an annual basis during the aforementioned period.
 - d. Property damage liability insurance shall provide explosion, collapse or underground coverage as applicable.
 - e. Contractual liability (hold harmless coverage):
 - Bodily Injury: \$1,000,000 Each occurrence
 - Property Damage: \$1,000,000 aggregate
 - f. Personal injury, with employment exclusion deleted: \$500,000 aggregate.
 - 11.1.2.3 Comprehensive Automobile Liability:
 - a. Bodily Injury: \$250,000 each person
\$500,000 each accident
 - b. Property damage: \$100,000 each occurrence

Note: Many states have no-fault automobile insurance requirements. The Contractor shall be certain that coverage is provided which conforms to any specific stipulation in the law of the state in which the work is performed.

- END OF SECTION -

Section 00 73 43

WAGE RATE REQUIREMENTS

Pursuant to Minnesota Statutes 177.41 to 177.44 and corresponding Rules 5200.1000 to 5200.1120, this contract is subject to the prevailing wages as established by the Minnesota Department of Labor and Industry. Specifically, all Contractors and Subcontractors must pay all laborers and mechanics the established prevailing wages for work performed under the contract. Failure to comply with the aforementioned may result in civil or criminal penalties.

For more information regarding prevailing wage and its application, contact:

Minnesota Department of Labor and Industry
Prevailing Wage Unit
443 Lafayette Road N.
St. Paul, MN 55155
Phone: (651) 284-5091
E-mail: dli.prevwage@state.mn.us
Web: www.dli.mn.gov

Section 01 11 00

SUMMARY OF WORK

This Section is for the convenience of the Contractor only and should not be construed as a complete accounting of all work to be performed.

The extent of the scope of work is indicated on the drawings and by the requirements of each Section. A copy of this Project Manual, Specifications and Detail Drawings (including all addenda and change orders) is required to be available on the project site at all times.

PART 1 – GENERAL

1.01 Discovery And Verification:

- A. It is the responsibility of the Contractor to visit the project site to verify dimensions and construction of all existing details, equipment, and job site conditions pertaining to this work prior to bidding.
 - 1. Limit use of premises to work in areas indicated. Do not disturb portions of project site beyond the Scope of Work of this contract.
- B. The details shown and descriptions of existing assemblies were obtained via isolated roof cores and/or from the original drawings.
- C. Materials and conditions shown by the details should not be construed as representative of each detail item on the entire roof area.

1.02 Staging and Site Access:

- A. Construction Time Frame: June 16, 2024 – August 15, 2025
- B. Contractor shall have use of premises for construction operations as indicated on Drawings by the Contract limits.

1.03 Permitting:

- A. Contractor shall obtain and pay for any permitting as required by the local jurisdiction for all phases of Work under this Contract.

1.04 Demolition And Roof Preparation:

- A. Prior to removal of existing roof system, provide all necessary protection for Owner's equipment and personnel.
- B. Maintain weather-tightness as work occurs and ensure that the building is weather-tight and secure when leaving the work site at the end of each work day.

- C. Remove debris and loose gravel (if present) from roof area and properly dispose of all materials off-site.
- D. Tear off existing roof membrane, base flashings, insulation material and loose vapor retarder (if present) down to the roof deck or surface of the existing insulation as noted on the project drawings and properly dispose of off-site.
- E. Ensure that all drains are in proper working order and that drain lines are clear to the first elbow.
- F. Contractor to temporarily disconnect and/or modify any conduits, gas lines, ductwork, etc. as necessary to allow for the installation of the new roofing system.
- G. Existing obsolete mechanical equipment to be disconnected and completely removed and disposed of off-site.
- H. Any existing roofing outside of the current Scope of Work shall be protected by Contractor using a minimum of ¾"-thick plywood and a minimum of 1" rigid insulation board. Any damage to the existing roof shall be repaired by the Contractor immediately and the Owner is to be notified.

PART 2 – NOT USED

PART 3 – EXECUTION

3.01 Deck Repair/Replacement:

- A. Remove obsolete roof penetrations (verified by facility personnel.)
- B. Remove and replace existing deteriorated decking to match existing deck as directed by the Architect/Engineer, if found to be damaged. Provide unit price.

3.02 Rough Carpentry:

- A. Install nailers, where required, to match height of new insulation, as detailed.
- B. Install nailers for curb extensions, as required, for minimum curb height of 8" above new membrane.

3.03 Insulation:

- A. Install insulation in accordance with specifications and details, joints butted tight.

Note: All joints are to be staggered and offset 50% from the previous layer.

3.04 Membrane/Flashings:

- A. Single Ply Membrane:
 - 1. Install a 90 mil, fire rated, non-reinforced, fully-adhered EPDM roof system.
 - 2. Install EPDM flashing to all penetrations, perimeters, and wall sections, as detailed.
 - 3. Install EPDM boots at pipe and plumbing locations.

3.05 Plumbing Work:

- A. Replace existing drain bowls with new cast iron drain and strainer connected to existing piping with a no-hub connection.
- B. Auger all interior roof drains at completion of re-roofing to ensure working order.

3.06 Sheet Metal/Flashings:

- A. Install new 24-gauge, pre-finished sheet metal counterflashings at curbs and perimeter locations.
- B. Install 24-gauge, pre-finished sheet metal on expansion and control joints where indicated on detail drawings.
- C. Install 24-gauge, galvanized accessories where shown on detail drawings.

3.07 Walkway Pads:

- A. Install walkway pads where shown on detail drawings.

3.08 Skylights:

- A. Replace skylights as indicated in contract documents.

3.09 Grounds:

- A. Provide clean-up of building and grounds on a daily basis and dispose of all debris off-site.
- B. After completion of the project, repair or restore any and all grounds, parking areas and roadways to their original condition prior to project commencement.

3.10 Hazardous Materials/Disposal:

- A. In review of the roof areas by the Architect/Engineer, it was discovered that the existing membrane assembly consisted of an EPDM roof system.
- B. This information was obtained by the Architect/Engineer by a physical review of the exterior of the building, and by obtaining test cuts from a limited number of locations representative of the membrane assembly. The interior of the structure was not reviewed by the Architect/Engineer to identify any other components of the facility which could contain asbestos or other potentially hazardous products.
- C. Neither the Owner nor the Architect/Engineer make any representation that the identified potentially hazardous materials are the only potentially hazardous materials incorporated into the roof system, and it is the responsibility of the Contractors bidding the project to identify and verify any hazardous waste material and to include the cost of disposal within their bid price. The Contractor shall be solely responsible for the health and safety of its employees in the handling or removal of potentially hazardous materials.

- END OF SECTION -

Section 01 31 19

PROGRESS MEETINGS

PART 1 - GENERAL

1.01 Description:

- A. Work Included: To enable orderly review during progress of the work, and to provide for systematic discussion of problems, the Architect/Engineer will conduct project meetings throughout the construction period as is deemed necessary.

1.02 Representation:

- A. Each Contractor and major Subcontractor shall be represented at every meeting by a responsible member of their organization.

1.03 Submittals:

- A. The minutes of these meetings will be recorded by the Architect/Engineer, and each required representative at meetings will be furnished one copy in addition to the Owner.
- B. The Architect/Engineer conducting meetings, recording, and distributing meeting minutes on behalf of the Owner shall not be construed as coordinating or scheduling Contractor's work.

1.04 Decisions/Interpretations:

- A. All decisions and interpretations given by the Architect/Engineer at project meetings shall be on behalf of the Owner and shall be binding for each Contractor affected.

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 Meeting Schedule:

- A. Meeting schedule as agreed to by Architect/Engineer and Contractors at pre-construction meeting.
- B. Change in meeting date/time: If a change of meeting date/time is required due to causes beyond control of the Owner or Architect/Engineer, the Architect/Engineer will advise each concerned party in advance of such change.

3.02 Meeting Location:

- A. To the maximum extent practical, meetings will be held at the job site.

3.03 Pre-Construction Meeting:

- A. Pre-construction meeting will be scheduled within fourteen days after the Owner has issued notice to proceed. Provide attendance by authorized representatives of the Contractor and all major Subcontractors. The Architect/Engineer will advise other interested parties and request their attendance.
- B. Minimum Agenda:
 - 1. Organization arrangement of Contractor's personnel, those of Subcontractors, and material suppliers.
 - 2. Channels and procedures for communications.
 - 3. Construction schedule including sequence of critical work.
 - 4. Contract documents including distribution of required copies of original documents and revisions.
 - 5. Status of submittal package.
 - 6. Processing of shop drawings and other data submitted for review.
 - 7. Processing of field decisions and change orders.
 - 8. Rules and regulations governing performance of the work.
 - 9. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.
 - 10. Name of Contractor's designated "Competent Person" per OSHA.
 - 11. Scheduling of project meetings.
 - 12. Project record documents.
 - 13. Shop drawings.

3.04 Project Meetings:

- A. Attendance:
 - 1. To the maximum extent practical, assign the same person or persons to represent the Contractor and major Subcontractors at project meetings throughout the project. Subcontractors, material suppliers, and others may be invited to attend those project meetings in which their aspects of the work are involved.
- B. Minimum Agenda:
 - 1. Review, revise as necessary, and approve minutes of previous meeting.
 - 2. Review progress of the work and construction schedule since last meeting, including status of submittals for approval.
 - 3. Identify problems which impede planned progress.
 - 4. Develop corrective measures and procedures to regain planned schedule.
 - 5. Complete other current business.

- END OF SECTION -

Section 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.01 Description:

- A. Work Included: To assure adequate planning and execution of the work so the work is completed within the number of calendar days allowed in the contract, and to assist the Architect/Engineer in evaluating progress of the work, prepare and maintain the schedules and reports described in this Section.
- B. Definitions:
 - 1. "Day" used throughout the contract, unless otherwise stated, means "calendar day."

1.02 Reliance upon Approved Schedule:

- A. Should any activity not be completed within fifteen days after the stated scheduled date, the Architect/Engineer shall have the right to order the Contractor to expedite completion of the activity by whatever means that he deems appropriate and necessary, without additional compensation to the Contractor.
- B. Should any activity be 30 or more days behind schedule, the Architect/Engineer, consulting with the Owner, shall have the right to perform the activity or have the activity performed by whatever method deemed appropriate.
- C. Costs incurred by the Architect/Engineer in connection with expediting construction activity under this article shall be reimbursed to the Architect/Engineer by the Contractor.
- D. It is expressly understood and agreed that failure by the Architect/Engineer to exercise the option to either order the Contractor to expedite an activity or to expedite the activity by other means shall not be considered precedent-setting for any other activities.

1.03 Submittals:

- A. Comply with the provisions of Section 01 33 00, Submittal Procedures.
- B. Construction Schedule: Within fourteen days after receipt of notice to proceed, submit two prints of the construction schedule prepared in accordance with part 3 of this Section.

- C. Periodic Reports:
 - 1. Contractor shall submit weekly progress reports itemizing daily activities for that period and identifying any problems encountered or anticipated to the Architect/Engineer.
 - 2. Comply with the provisions of Section 01 32 26 Construction Progress Reporting.

1.04 Penalty:

- A. Liquidated Damages:
 - 1. If the work is not completed in its entirety by the date stated in the contract, the Contractor will pay to the Owner liquidated damages in the amount of \$500.00 (five hundred dollars) per calendar day or fraction thereof for additional time required to complete the project.
 - 2. Any extensions of time which are authorized in writing by the Owner or his representative will duly extend the period of work with no penalty to the Contractor.

PART 2 - PRODUCTS

2.01 Construction Analysis:

- A. Diagram:
 - 1. Graphically show the order and interdependence of all activities necessary to complete the work and the sequence in which each activity is to be accomplished as planned by the Contractor and their project field superintendent in coordination with all Subcontractors whose work is shown on the diagram. Activities shown on the diagram shall include, but are not necessarily limited to:
 - a. Project Mobilization
 - b. Submittals and Approvals of Shop Drawings and Samples
 - c. Procurement of Equipment and Materials
 - d. Demolition/Roof Preparation
 - e. Construction
 - f. Sheet Metal
 - g. Miscellaneous Work
 - h. Final Clean-up
 - i. Final Inspection
- B. The detail of information shall be such that duration times of activities shall normally range from one to thirty days. The selection and number of activities shall be subject to the Architect's/Engineer's approval.

PART 3 - EXECUTION

3.01 Construction Schedule:

- A. As soon as practical after receipt of notice to proceed, complete the construction analysis described in articles 2.1 above, in preliminary form. Meet with the Architect/Engineer, review contents of proposed construction schedule, and make all revisions agreed upon. Submit in accordance with paragraph 1.3 (B) above.
- B. Project start date shall be on or after June 16, 2025.
- C. Substantial completion shall be on or before August 15, 2025.

3.02 Periodic Reports:

- A. Construction Schedule Contents:
 - 1. Show activities or portions of activities completed during the reporting period.
 - 2. State the percentage of work actually completed and scheduled as of the report date, and the progress relative to days ahead of, or behind the allowable dates.
 - 3. If work is behind schedule, provide a narrative report which shows, but is not necessarily limited to:
 - a. A description of the problem areas, current and anticipated.
 - b. Delaying factors and their impact.
 - c. An explanation of corrective actions taken or proposed.

3.03 Revisions:

- A. Make only those revisions to construction schedule as are approved in advance by the Architect/Engineer.

- END OF SECTION -

Section 01 32 26

CONSTRUCTION PROGRESS REPORTING

PART 1 - GENERAL

1.01 Description:

- A. To provide a continuous record of the progress of the work, each Contractor shall keep a daily progress report.
- B. Format of progress reports shall be approved by Architect/Engineer at the pre-construction meeting.

1.02 Quality Assurance:

- A. Progress reports are to be filled out on a daily basis by the Contractor's job site representative, who shall be in a supervisory position.
- B. Wherever possible, reports shall be completed by the same individual throughout the duration of the project.

1.03 The Architect/Engineer Shall Receive One (1) Copy of All Progress Reports on a Weekly Basis.

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 Completion of Progress Report:

- A. Contractor shall complete one (1) form for each working day.
- B. Forms shall also be completed for the following days:
 - 1. Work days canceled or shortened due to weather, material shortages, or labor conditions.
 - 2. Holidays.

3.02 Forms Shall Be Legibly Filled out in Ink and All Pertinent Items Completed.

- END OF SECTION -

Section 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 Description:

- A. Work included:
 - 1. Make all submittals as required by the contract documents and revise and resubmit as necessary to establish compliance with the specified requirements.
- B. Related work described elsewhere:
 - 1. Additional requirements for submittals not listed in this Section are described in pertinent other Sections of these specifications.

1.02 Quality Assurance:

- A. Coordination of Submittals:
 - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify each item of the submittal conforms in all respects with the requirements of the contract documents. By affixing the Contractor's signature to each submittal, you certify this coordination has been performed.

1.03 Submittals:

- A. Submittal Schedule:
 - 1. Within fourteen days after award of contract and before any items are submitted for approval, submit to the Architect/Engineer four copies of the schedule described in Section 01 32 16 of this specification.
- B. Procedures:
 - 1. Make submittals in strict accordance with the provisions of this Section.
- C. Contractor Safety Program:
 - 1. Provide evidence of A Workplace Accident and Incident Reduction (AWAIR) program.
 - 2. Name of person designated as "Competent Person" per Occupational Safety and Health Administration (OSHA).

PART 2 - PRODUCTS

2.01 Shop Drawings and Coordination Drawings:

- A. Scale and Measurements:
 - 1. Make all shop drawings accurate to a scale sufficiently large to show all pertinent aspects of the item.
- B. Type of Prints Required:
 - 1. Submit all shop drawings in PDF format to the Architect/Engineer.
- C. Review of Shop Drawings:
 - 1. Distribution of reviewed shop drawings for the Contractors use will be by the Architect/Engineer. All review comments by the Architect/Engineer will be shown on the original submittal when it is returned to the Contractor. The Architect/Engineer shall make and distribute all copies required.

2.02 Manufacturer's Literature:

- A. General:
 - 1. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.
- B. Number of copies required:
 - 1. Submit in PDF format to Architect/Engineer.

2.03 Samples:

- A. Accuracy of Samples:
 - 1. Samples shall be of the precise article proposed to be furnished.
- B. Number of Samples Required:
 - 1. Unless otherwise specified, submit two samples.

2.04 Colors:

- A. Unless the precise color is specifically described in the contract documents, and whenever a choice of color is available in a specified product, submit accurate color charts to the Architect/Engineer for review and selection.

2.05 Substitutions:

- A. Approval Required:
 - 1. All products proposed for use, including those specified by required attributes and performance, shall require approval by the Architect/Engineer before being incorporated into the work.
 - 2. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this work by the Architect/Engineer.

- B. "Or Equal":
 - 1. Where the phrase "or equal" or "or equal as approved by the Architect/Engineer" occurs in the contract documents, do not assume materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by the Architect/Engineer.
 - 2. The decision of the Architect/Engineer shall be final.

PART 3 - EXECUTION

3.01 Timing of Submittals:

- A. Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, securing necessary approvals, possible revisions and re-submittals, and placing orders and securing delivery.

- B. Submittal Review Time:
 - 1. In scheduling, allow at least ten (10) calendar days for review by the Architect/Engineer following the Architect/Engineer's receipt of the submittal.

- C. Delays:
 - 1. Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the contract completion date.

- D. Architect's/Engineer's Review:
 - 1. Review by the Architect/Engineer shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the Contractor from responsibility for errors which may exist.

- E. Authority to Proceed:
 - 1. The notations "reviewed, no exceptions noted" or "reviewed, exceptions noted" authorize the Contractor to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the Architect's/Engineer's review comments.

- F. Revisions:
1. Make all revisions required by the Architect/Engineer. If the Contractor considers any required revision to be a change, he shall so notify the Architect/Engineer as provided for under "changes" in the general conditions. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed or approved by the Architect/Engineer.
- G. Revisions After Approval:
1. When a submittal has been reviewed by the Architect/Engineer, re-submittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

3.02 Required Submittals:

- A. Documentation of job site safety:
1. Provide evidence of A Workplace Accident and Incident Reduction (AWAIR) program.
 2. Documentation for person designated as "Competent Person" per Occupational Safety and Health Administration (OSHA).
- B. Submit shop drawings as detailed in 2.1 for the following:
1. Roof-Related Sheet Metal
 2. Other Sheet Metal
- C. Manufacturer's Literature:
1. Submit product literature on roof membrane and all pertinent accessories supplied by manufacturer.
 2. Submit product literature on insulation(s), indicating "R" value.
 3. Submit product literature on all fasteners to be used on project.
 4. Submit product literature on all caulking and sealants to be used on the project.
 5. Submit MSDS sheets for hazardous materials.
 6. Submit a copy of the completed Manufacturer's Pre-Installation Notice.
- D. Samples:
1. Submit two (2) samples of each type of metal to be used on project.

- END OF SECTION -

Section 01 35 23

SAFETY REQUIREMENTS

PART 1 - GENERAL

1.01 Description:

- A. The following applies to the work of all Sections of the specifications. Additional requirements are specified in individual Sections.
- B. The roofing Contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. The most stringent of these laws, ordinances, codes, rules, regulations and orders (or this Section) shall apply should a conflict arise.
- C. Failure of this Section to reference specific laws, ordinances, codes, rules, regulations or orders does not excuse Contractor or Contractor employees from following those regulations that may be applicable to the scope of work being performed by the Contractor.
- D. Safety shall be the responsibility of the roofing Contractor. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors, customers and the occurrence of the general public on or near the site.
- E. These safety requirements may be exceeded by the specific safety rules and procedures of individual facilities.
- F. Contractor shall not permit any unauthorized person to enter the work site, except in accordance with the safety and security requirements of Owner.
- G. Contractor agrees to indemnify and hold harmless Owner *and Architect/Engineer* from prohibiting any Contractor or Subcontractor's employees, agents, or invitees from entering onto the work site or project if, in the sole opinion of Owner, such employee, agent, or invitee fails to comply with the above mentioned safety and health laws, rules, and regulations.

1.02 Referenced Standards:

- A. The standard publications listed below and their supplements form a part of this Section:
 - 1. U.S. Department of Labor - Occupational Safety and Health Administration (OSHA).
 - 2. National Fire Protection Association (NFPA).
 - 3. National Electrical Code (NEC) - Refer to NFPA 70.

4. American National Standards Institute, Inc. (ANSI).
 5. The Material Handling Institute, Inc. (MHI) - Refer to Crane Operators Manual.
 6. Environmental Protection Agency (EPA).
 7. Applicable Fire Code.
 8. Applicable Building Code.
 9. Federal, State or Local Ordinances.
- B. Where a standard is referenced in this Section, the subject referenced (equipment, material, or work) shall be in compliance with the most recent edition of that standard.
- C. The referenced standards are minimum requirements. Where the requirements of this Section are in excess of, but not contrary to, the referenced standards, Contractor shall comply with the more stringent requirements.

1.03 Owner's Facility Safety Indoctrination:

- A. Contractor shall obtain from Owner any safety rules and regulations in effect at Owner's work site. Contractor shall be responsible for requiring all of Contractor's employees to receive and ensure comprehension of this information prior to beginning work.
- B. Contractor shall keep records showing to whom this information had been given. In the event there is a change in personnel or Contractor's work force, Contractor is responsible for providing any new employees with this information and maintaining all necessary records.

1.04 Permits:

- A. At some locations, the Owner may require specific permits consistent with Owners safety rules and regulations.

1.05 Fire Protection and Prevention:

- A. Contractor's personnel shall observe Owner's fire safety rules, regulations and evacuation procedures.
- B. Contractor shall be responsible for the development of a fire protection program to be followed throughout all phases of the work and shall provide for the firefighting equipment in accordance with OSHA regulations and the requirements appropriate to the type of work being performed.
- C. Spent bitumen mop heads shall be removed from the roof at the end of the day's work, allowed to cool and disposed of properly after cool. Other flammable materials such as rags and containers shall also be removed from the roof at the end of each day.

1.06 Equipment:

- A. Contractor shall comply with the manufacturer's specifications and limitations applicable to the operation of all equipment.

1.07 Contractor's Safety Training and Education:

- A. Contractor must provide a qualified Safety Supervisor who is responsible for maintaining work site safety during all phases of work. The Safety Supervisor shall conduct safety meetings with all personnel and monitor site safety continuously.
- B. Before work begins, Contractor shall submit to Owner through the Architect/Engineer, a hazardous material inventory for Contractor-supplied hazardous materials and corresponding MSDS's.
 - 1. The hazardous material inventory, along with all update information shall be *maintained and* made available with copies of MSDS's on site at all times.
- C. Contractors are required to strictly enforce container labeling. Labels are to include the identity of the substance and the appropriate hazard warning on all containers.

1.08 Personal Attire and Protective Equipment:

- A. Contractor is responsible for providing, training and requiring employees to wear appropriate personal protective equipment for all operations where there is an exposure to hazardous conditions, where there is the need for using such equipment to reduce the hazards to employees, where required by the specifications or where required by local laws.

1.09 Personal Conduct:

- A. Horseplay, fighting, gambling, explosives, possession of firearms, drinking alcoholic beverages, use of regulated drugs, being under the influence of drugs or alcohol, theft, vandalism, sabotage and distribution of unauthorized literature shall be cause to bar those involved from the work site.

1.10 Safety Inspection and Housekeeping:

- A. At a minimum, Contractor shall check the work area daily at the beginning and at the end of each work shift to ensure safe working conditions are maintained and all safety procedures are followed.

1.11 Material Storage and Disposal:

- A. General:
 - 1. Contractor shall be responsible for using safe methods of handling, storage and disposal of materials.
 - 2. Contractor's personnel shall observe Owner's safety rules and regulations.
- B. Material Disposal:
 - 1. Disposal of debris and waste materials shall comply with all applicable ordinances, regulations and laws of local, city, county, state and national government agencies.
 - 2. The disposal method of debris, waste materials, and hazardous waste materials shall be selected by Contractor and comply with applicable laws.
 - 3. Contractor shall prevent the discharge of lubricating oils, cleaning solvents and other materials onto the ground and/or into sewers.

1.12 Vertical and Horizontal Work Safety Access Control:

- A. Ladders:
 - 1. The use and erection of ladders shall comply with OSHA regulations.
- B. Scaffolds, Lifts and Swing Stages:
 - 1. The use and erection shall comply with OSHA regulations.
- C. Safety Harnesses:
 - 1. The use of safety harnesses shall comply with OSHA regulations and safety harnesses shall be used on work sites as required.
- D. Openings in Floors, Walls and Stairwells:
 - 1. The protection of unguarded openings in floors, walls and stairwells shall be in compliance with OSHA regulations.
- E. Stairways, Platforms, Runways, Walkways and Ramps:
 - 1. The fabrication and use of temporary stairways, walkways and ramps shall be in compliance with OSHA and ANSI regulations.
- F. Excavations:
 - 1. The fabrication and use of temporary shoring and means of access shall be in compliance with OSHA.

1.13 Miscellaneous Provisions:

- A. General:
 - 1. Contractor is solely responsible for Contractor equipment and goods. Owner is not responsible for any losses by theft (or by any other nature) of Contractor's property.

- B. Illumination:
 - 1. Contractor shall ensure that construction areas, aisles, stairs, ramps runways, corridors, offices, shops and storage areas where work is in progress shall be adequately lighted with either natural or artificial illumination.

- C. Hand and Power Tools:
 - 1. All hand and power tools and similar equipment, whether furnished by Contractor or Contractor employees, shall be maintained in a safe operating condition. Damaged tools shall be immediately repaired or replaced. Tools shall be used only for the purpose for which they were designed.
 - 2. Any tools that are designed to have guards must have those guards in place at all times.

- D. Temporary Electrical Protection:
 - 1. Contractor shall provide either ground fault circuit interrupters or assured equipment grounding conductor program for all electrical connections which are not a part of the permanent wiring of the building.

1.14 Signs, Signals and Barricades:

- A. The fabrication and use of barricades, fencing and handrails shall be as shown on drawings and in compliance with Owner's safety rules and with OSHA and ANSI regulations.

- B. Contractor shall be responsible for posting, installing and maintaining signs, signals and barricades to detour the passage of persons or vehicles at all locations where potential hazards exist.

- C. Contractor's employees shall obey all signs, signals and barricades which are posted to warn of potential or existing hazards.

- D. Contractor is responsible for maintaining all code required means of egress.

PARTS 2 AND 3 - NOT USED

- END OF SECTION -

Section 01 45 16

CONTRACTOR'S QUALITY CONTROL

PART 1 - GENERAL

1.01 Project Manual:

- A. A copy of the Project Manual, Specifications and Detail Drawings (including all addenda and change orders) is required to be available on the project site at all times.

1.02 Material Quality:

- A. Materials incorporated into project shall be new, except as otherwise indicated in the contract documents, of specified quality, and furnished in sufficient quantity to facilitate proper and speedy execution of the work.
- B. Contractor shall furnish evidence of the quality of materials incorporated into project as required by the contract documents or at the request of Architect/Engineer.
- C. Materials not meeting requirements of the contract documents shall be removed from project and replaced with materials meeting contract document requirements by Contractor with no additional expense to Owner.

1.03 Asbestos:

- A. Refer to Section 01 11 00, Summary of Work, for hazardous materials identified on the site.
- B. The contract documents for this project have been prepared in accordance with generally accepted professional Architectural and Engineering practices. Accordingly, no asbestos or products containing asbestos have been knowingly specified for this project. Notify the Architect/Engineer immediately for instructions if -
 - 1. Materials containing asbestos are brought to the site for inclusion in the work.
 - 2. Asbestos materials are encountered in any existing structures upon which work is being performed.
- C. At Architect's/Engineer's direction and with Owner's approval, an independent testing laboratory will perform testing procedures on suspect materials.

- D. Contractor shall certify that based upon their best knowledge, information, inspection, and belief, no building materials containing asbestos were used in the construction of the project. Submit certification at completion of project on form provided at end of Section 01 77 00 Project Closeout.

PART 2 AND 3 - NOT USED

- END OF SECTION -

Section 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 Description:

- A. Temporary facilities and controls required for the performance of this work include, but are not necessarily limited to:
 - 1. Temporary utilities such as heat, water and electricity
 - 2. Contractor's facilities
 - 3. Sanitary facilities
 - 4. Enclosures such as tarpaulins, barricades, and canopies
- B. Related work described in other Sections of these specifications:
- C. All equipment furnished by Contractors shall comply with all requirements of pertinent safety regulations. The ladders, planks, hoists, and similar items normally furnished by the individual trades in execution of their own portions of the work are part of this Section.

1.02 Quality Assurance:

- A. Conduct daily inspections to verify that temporary utility connections are secure and safe.

1.03 Product Handling:

- A. Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout the progress of the work.

1.04 Job Conditions:

- A. Make all required connections to existing utility systems with minimum disruption to services in the existing utility systems.
 - 1. When disruption of the existing service is required, do not proceed without the Owner's approval and, when required, provide alternate temporary service.
- B. If required utility is not available from Owner, Contractor shall provide alternate temporary service for the duration of the work.

PART 2 - PRODUCTS

2.01 Utilities:

- A. General: All temporary facilities shall be subject to the Owner's approval.
 - 1. Electricity:
 - a. The Owner may furnish electricity at the site. Special electrical requirements must be reviewed and approved by the Owner.
 - b. Contractor's access to electricity is to be from supply designated by Owner.
 - c. Furnish and install necessary temporary wiring, and upon completion of the work, remove all such temporary facilities.
 - 2. Water:
 - a. Owner will furnish water needed for construction at no cost to Contractor.
 - b. Contractor to provide all hoses, etc.
 - c. Contractor to provide drinking water.

2.02 Contractor's Facilities:

- A. Provide temporary sanitary facilities in the quantity required for use of all personnel. Maintain in a sanitary condition at all times.

2.03 Enclosures:

- A. Furnish, install, and maintain for the duration of construction, all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the work in compliance with all safety and other regulations.

2.04 Project Signs:

- A. Allow no signs or advertising of any kind on the job site.
- B. All exterior designated staging and material storage areas shall be protected with a fence. Barricades and warning lines are not acceptable.
 - 1. As a minimum, the exterior fence shall consist of the following unless local, state, and federal regulations require more stringent requirements:
 - a. Self supporting, six foot high wire welded mesh or chain link fence.
 - b. The fence posts shall be non-penetrating stabilized with counterweights.
 - c. Fence, post, mesh and counter weights shall be galvanized or be composed of a weather resistant non-staining/soiling material.

- d. Gates shall be locked daily at the end of each working day. A second key to the locked gates shall be submitted to the college's designated representative. The key will be returned to the Contractor at the end of the project. The Contractor shall verify the quantity and size of gates as required to accommodate type of work within staging area.
 - e. All posts and mesh shall be free of sharp edges and have all protrusions ground flush. Razor wire is not acceptable.
 - f. Contractor shall post the following signs on the fence next to main entrance gate:
 - 1) A yellow weather resistant sign which reads: "DANGER - Construction Zone – Authorized Personnel Only"
 - 2) Copy of the building permit which is posted in a weather resistant sign holder (8.5" x 11").
 - 3) Project information sheet posted in a weather resistant sign holder (8.5" x 11"). Project information sheet shall contain no logos or marketing information and shall consist of the following:
 - a) Project Name & Description
 - b) Contractor's name, address & phone number
 - c) Contractor's on-site designated safety representative and site superintendents' names and mobile number.
 - d) School's designated representative's name and phone number.
 - e) RSI's designated representative's name and phone number.
 - f) Description of location of contractor's and college's MSDS sheets.
2. As a minimum, the exterior fence(s) shall be installed around the designated staging areas to include but not limited to the following:
- a. Dumpsters
 - b. Kettles & Tankers
 - c. Temporary Lavatories
 - d. Generators
 - e. Propane
 - f. Material and equipment storage areas
 - g. Mixers
 - h. Scaffolding
 - i. Main roof or wall access (ladders and/or scaffolding)
 - j. Lock boxes
 - k. Smaller material storage enclosures.
 - l. Flat bed trucks and trailers which will be stored overnight.

3. Items not requiring fencing: Enclosed trailers, dumpster's with lockable covers, larger hoisting and earth moving equipment, temporary delivery trucks and trailers and workers vehicles.
 - a. The college will be fully or partially in session and only limited parking space will be allotted for the above referenced items. The contractor shall manage and coordinate the work in such a manner that they will stay within their preapproved construction boundary.

PART 3 - EXECUTION

3.01 Maintenance and Removal:

- A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work.
- B. Remove all such temporary facilities and controls as rapidly as progress of the work will permit, or as directed by the Architect/Engineer.

- END OF SECTION -

Section 01 74 00

CLEANING AND WASTE MANAGEMENT

PART 1 - GENERAL

1.01 Description:

- A. Work Included: Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this Section.
- B. In addition to standards described in this Section, comply with all requirements for tear-off, hazardous materials disposal and cleaning up as described in various other Sections of these specifications.

1.02 Quality Assurance:

- A. Conduct daily inspections to verify that requirements of cleanliness are being met.

1.03 Related Work:

- A. Section 07 51 14 Asphalt Built Up (Five Ply) Roofing Gravel Surfacing

PART 2 - PRODUCTS

2.01 Cleaning Materials and Equipment:

- A. Provide all required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.02 Compatibility:

- A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned as recommended by the manufacturer of the material.

PART 3 - EXECUTION

3.01 Progress Cleaning:

- A. General:
 - 1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.

2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work.
 3. At least twice each week and more often if directed by the Architect/Engineer, completely remove all scrap, debris, and waste material from the job site.
 4. Provide storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the surrounding site.
 5. Storage containers shall be as approved by the Architect/Engineer.
- B. Site:
1. Daily, and more often if necessitated by job conditions, inspect the site and pick up all scrap, debris, and waste material. Remove all such items to the place designated for their storage.
 2. Weekly, and more often if necessitated by job conditions, inspect all arrangements of materials stored on the site, restack, tidy, or otherwise service all arrangements to meet the requirements of subparagraph 3.1 (A) above.
 3. Maintain the site in a neat and orderly condition at all times.

3.02 Final Cleaning:

- A. Definition:
1. Except as otherwise specifically provided, "clean" (for the purpose of this article) shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- B. General:
1. Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste.
- C. Site:
1. Unless otherwise specifically directed by the Architect/Engineer, clean all adjacent areas on the site. Completely remove all resultant debris. Restore the building and grounds to the original condition.
- D. Structures:
1. Visually inspect all exterior surfaces and remove all traces of soil, waste material, smudges, and other foreign matter. Remove all traces of splashed materials from adjacent surfaces.
 2. The Architect/Engineer may require light sandblasting or other cleaning at no additional cost to the Owner.
 3. If light sandblasting or other cleaning is required, take every precaution to prevent damage to all adjacent materials, property, and vegetation.

- END OF SECTION -

Section 01 77 00

PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 Description:

- A. To provide a specific format for substantial and final inspection.
- B. Related Requirements Specified Elsewhere:
 - 1. Completion: Waiver of Claims, General Conditions
 - 2. Cleaning and Waste Management: Section 01 74 00
 - 3. Project Record Documents: Section 01 78 00
 - 4. Warranties: Section 01 78 36
 - 5. Closeout Submittals Required for Trades: Respective Sections of Specifications
 - 6. Substantial Completion: Conditions of the Contract

1.02 Quality Assurance:

- A. All documents submitted shall be signed by a person authorized to sign contracts on behalf of the Contractor.
- B. All document formats shall be as approved by the Architect/Engineer.

1.03 Submittals:

- A. Refer to paragraph 3.4 below for closeout submittals.

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 Substantial Completion:

- A. Contractor Shall:
 - 1. Submit notification to the Owner via the Architect/Engineer when the project, or designated portion of project, is substantially complete.
 - 2. Submit list of items to be completed or corrected.
- B. Owner and Architect/Engineer will make an inspection within ten (10) days after receipt of certification.

- C. Should Owner and Architect/Engineer consider that work is substantially complete:
 - 1. Contractor shall prepare and submit to Owner, via the Architect/Engineer, a list of all items to be completed or corrected as determined by the audit.
 - 2. Architect/Engineer will prepare and issue a letter to all parties of substantial completion containing:
 - a. Contractor's list of items to be completed, verified, and amended by Owner and Architect/Engineer.
 - b. The time within which Contractor shall complete or correct work of listed items.
 - c. Time and date Owner will assume possession of work or designated portion thereof.
 - d. Signatures of:
 - (1) Owner
 - (2) Architect/Engineer
 - (3) Contractor
- D. Contractor shall then complete work listed for completion or correction within the designated time.
- E. Should Owner and Architect/Engineer consider that work is not substantially complete:
 - 1. The Architect/Engineer shall immediately notify Contractor in writing stating reasons.
 - 2. Contractor shall then complete work and send second written notice to Owner, via the Architect/Engineer, certifying that the project, or designated portion of the project, is substantially complete.
 - 3. Owner and Architect/Engineer will reinspect work within ten (10) calendar days after receipt of notification.

3.02 Final Inspection:

- A. Contractor shall submit written notification to Owner, via the Architect/Engineer that:
 - 1. Contract documents have been reviewed.
 - 2. Project has been inspected for compliance with contract documents.
 - 3. Work has been completed in accordance with contract documents.
 - 4. Project is completed and ready for final inspection.
- B. Contractor shall indicate, with notice of completion to manufacturer, that a warranty is required for this project and is to be sent to the Contractor. Contractor is to be responsible to Owner for warranty.
- C. Owner, Architect/Engineer, and Contractor will make final inspection within ten (10) calendar days after receipt of notification.

- D. Should Owner and Architect/Engineer consider that the work is finally complete in accordance with the requirements of the contract documents, Architect/Engineer shall request Contractor to make project closeout submittals.
- E. Should Owner and Architect/Engineer consider that work is not finally complete:
 - 1. Architect/Engineer shall notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to Owner via Architect/Engineer certifying that work is complete.
 - 3. Owner and Architect/Engineer will reinspect work within ten (10) calendar days after receipt of notification.

3.03 Reinspection Costs:

- A. Should Owner and Architect/Engineer be required to perform second inspections because of failure of work to comply with original notification of Contractor, Contractor will compensate Owner and Architect/Engineer for additional services.

3.04 Closeout Submittals:

- A. Construction Material Asbestos Statement: A copy of the certification form is attached.
- B. Project Record Documents: as Required by Section 01 78 00.
- C. Warranties: As Required by Section 01 78 36.
- D. Evidence of payment and release of liens and/or Contractor's affidavit of payment of debts and claims: AIA G706.
- E. Submit Form IC-134 stating that contractor has complied with withholding requirements of Minnesota statute 290.92.
- F. All submittals shall be duly executed before delivery to Owner via the Architect/Engineer.
- G. Final adjustment of accounts.
- H. Submit final pay application to Owner via the Architect/Engineer.
- I. Statement shall reflect all adjustments, including:
 - 1. Original Contract Sum
 - 2. Additions and deductions resulting from (if applicable):
 - a. Previous Change Orders
 - b. Cash Allowances
 - c. Unit Prices
 - d. Other Adjustments

- e. Deductions for Uncorrected Work
 - f. Deductions for Reinspection Payments
 - 3. Total contract sum as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- J. Architect/Engineer will prepare final change order, reflecting approved adjustments to contract sum not previously made by previous change orders.

3.05 Final Application for Payment:

- A. Contractor shall submit final application in accordance with conditions of the contract.
- B. Final certificate for payment.
- C. Architect/Engineer will issue final certificate in accordance with provisions of general conditions.
- D. Final payment will not be made until all close-out submittals are received and approved and all work is completed, including all deficiencies noted in inspection reports.

3.06 Construction Materials Asbestos Statement:

- A. Sample form follows.

CONSTRUCTION MATERIAL ASBESTOS STATEMENT

**PROJECT: PARTIAL ROOF REPLACEMENT
NORTH JUNIOR HIGH SCHOOL
1212 29TH AVENUE NORTH
ST. CLOUD, MN 56303**

**OWNER: ST. CLOUD AREA SCHOOL DISTRICT #742
1201 2ND STREET SOUTH
WAITE PARK, MN 56387**

COMPLETION DATE:

As ARCHITECT/ENGINEER; based on my best knowledge, information and belief; I certify that on the above referenced project, no asbestos containing building materials were specified in the construction documents or given approval in shop drawings or submittals.

RSI Building Envelope.

Company Name

Date

Architect/Engineer: (Print Name)

As CONTRACTOR in charge of construction; based on my best knowledge, information, inspection, and belief; I certify that on the above-referenced project, no asbestos containing building materials were used in the construction.

Company Name

Date

Contractor By: (Print Name)

- END OF SECTION -

Section 01 78 00

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 Description:

- A. Throughout the work of this contract, maintain an accurate record of the following:
 - 1. Contract Documents (Project Manual with Detail Drawings)
 - 2. Addenda
 - 3. Change Orders and Other Modifications to the Contract
 - 4. Field Orders and Instructions
 - 5. Construction Schedule
 - 6. Product Samples
 - 7. Shop Drawings
 - 8. Progress Reports

1.02 Quality Assurance:

- A. Delegate the responsibility for maintenance of record documents to one person on the Contractor's staff as approved in advance by the Architect/Engineer.
- B. Make all entries within 24 hours after receipt of information.

1.03 Submittals:

- A. Prior to submitting each request for progress payment, secure the Architect/Engineer's approval of the record documents as currently maintained.
- B. Prior to submitting request for final payment, submit the final record documents to the Architect/Engineer and secure his approval.

1.04 Product Handling:

- A. Use all means necessary to maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of the work and transfer of the recorded data to the final record documents.

PART 2 - PRODUCTS

2.01 Record Documents at Pre-construction Meeting:

- A. Secure from the Architect/Engineer, at no charge to the Contractor, one complete set of all documents comprising the contract.

PART 3 - EXECUTION

3.01 Maintenance of Record Documents:

- A. Upon receipt of record documents described in 2.1 above, identify each of the documents with the title "project record documents."
- B. Maintain the record documents at the job site. Documents to be available to the Architect/Engineer during all working hours.

3.02 Review and Approval:

- A. Submit the completed total set of record documents to the Architect/Engineer as described above. Participate in review meeting or meetings as required by the Architect/Engineer. Make all required changes in the documents and promptly deliver the final project record documents to the Architect/Engineer.

- END OF SECTION -

Section 01 78 36

WARRANTIES

PART 1 - GENERAL

1.01 Description:

- A. To provide the specified Contractor's and Material Manufacturer's Warranty at the completion of the project.

1.02 Submittals:

- A. Upon completion of work and prior to final payment, the following items are to be submitted to the Architect/Engineer as part of this Section.
 - 1. Copies of all manufacturer's punch lists and documentation of completion.
 - 2. Copies of all Architect/Engineer's punch lists and documentation of completion.
 - 3. Manufacturer's report that roof has been inspected and is suitable for warranty.
 - 4. Contractor's two (2) year, labor-and-material warranty on all re-roofing activities to Owner.
 - 5. Manufacturer's labor-and-material warranty to Owner.
 - a. EPDM membrane, thirty (30) year labor-and-material warranty.
 - 6. Manufacturer's labor-and-material warranty shall have no penal sum and no dollar limit.

PART 2 - NOT USED

PART 3 - EXECUTION

- 3.1 Submit all items in paragraph 1.1 above as part of project manual, Section 01 78 00.
- 3.2 Submit Contractor's warranty on following form.

- THIS PAGE NOT USED -

**CONTRACTOR'S TWO YEAR
LABOR AND MATERIAL WARRANTY**

Owner:

Address:

Project Name:

Project Address:

Project Number:

Roof Section(s) Identification:

Roof System Description:

Roof Area

System Description

Date of final acceptance:

Contractor:

Address:

Telephone number: (____)

This warranty stipulates that the above Contractor will, for a period of two (2) years from the above date of final acceptance, maintain the roof membrane and flashing systems (includes sheet metal) in a watertight condition. The Contractor further warrants that he will repair all defects (i.e., ridges, blisters, voids, etc., which may or may not be allowing for infiltration) which result from faulty workmanship or defective materials at no additional cost to the Owner.

In addition, all repairs are to be performed inclusive of replacement of any wet or damaged insulation or adjacent materials resulting directly from defective workmanship or materials.

Excluded from this warranty is any and all damage to the subject roof area(s), the building(s) and its contents resulting from acts or omissions of the Owner. In addition, damage resulting from: fire, lightning, windstorms exceeding 72 miles per hour, hail storms, or other unusual phenomenon of the elements; movement or failure of the supporting building structure that causes membrane or flashing failure; or vapor condensation beneath the roof.

Excluded from this warranty are any damages to the building(s) or its contents.

Prior to expiration of the above warranty period, the above named roofing Contractor shall inspect the roof areas in the presence of the Owner's representative. Any items noted within this review not considered to be normal will be corrected by the Contractor at no additional cost to the Owner.

Signed by:

(Signature of company officer)

(Title)

(Date)

- END OF SECTION -

Section 02 41 19

ROOF DEMOLITION

PART 1 - GENERAL

1.01 Description:

- A. Provide all labor, material, equipment, and tools to prepare the existing roofing system for re-roofing as specified in this Section.
- B. Provide for the proper disposal of all materials to be removed as identified in the specifications or on the drawings.

1.02 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 and Architect/Engineer to minimize any disruptions of the Owner's operations.

1.03 Disposal:

- A. All debris shall be stored in containers approved by the Architect/Engineer.
- B. Keep Owner's property clean of any construction debris.

PART 2 - NOT USED

PART 3 - EXECUTION

3.01 Protection of Surfaces:

- A. Contractor shall take all precautions during roof preparation to protect the building and adjacent surfaces from being soiled or damaged. Exercise special care at openings through roof and at roof edges.
- B. Contractor shall protect existing roofing that is not scheduled to be removed with minimum $\frac{3}{4}$ inch thick plywood protection board. Any damage to existing roof shall be repaired by Contractor.

- C. Keep roof surface clean of any debris or materials that might prevent proper drainage.
- D. Keep roof drains and overflow drains in operating condition at the end of each working day.

3.02 Removal of Existing Roofing Materials:

- A. Prior to demolition, inform facility personnel and Architect/Engineer of area and location of work.
- B. Suitably tarp and protect all interior equipment and products from dust and debris which may filter into interior, if necessary.
- C. Remove and dispose of all loose gravel.
- D. Tear off the existing roofing and insulation as noted on drawings.
- E. Tear off all existing base flashings.
- F. Tear off all existing projection flashings.
- G. Tear off existing insulation, any original built-up roof system to the surface of the metal deck.
- H. Broom or vacuum surface of insulation to remove as thoroughly as possible, all dust and debris.

3.03 Disposal:

- A. Properly dispose of all debris on a daily basis.
- B. Do not store debris on roof. Contractor shall take care not to overload roof deck.

3.04 Clean-Up:

- A. Prior to the completion of the work, remove from the job site all tools, equipment, debris and waste.
- B. Contractor shall restore to original condition any damage caused during work performed in this Section.
- C. Conduct final cleaning as per Section 01 74 00 Cleaning and Waste Management.

- END OF SECTION -

Section 05 01 30

METAL DECK REPAIR/REPLACEMENT

PART 1 - GENERAL

1.01 Description:

- A. Work includes, but is not necessarily limited to: Remove all severely deteriorated decking and replace with new deck to match existing or approved equal.

1.02 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 the acceptance or rejection of the work, the Architect/Engineer will make no allowance for lack of skill on the part of workers.

1.03 Product Handling:

- A. Delivery and storage: Deliver materials to the job site in original, unopened containers no sooner than five (5) calendar days prior to start of job. Materials to be stored up, off of the roof deck or ground, and covered with a weatherproof covering anchored sufficiently so as to resist wind blow-off. Only those materials necessary to accomplish two days' work are to be stored on the roof.
 - 1. Contractor is responsible for all materials delivered to job site until completion of project.
 - 2. When storing materials on the roof, do not over-stress deck.
- B. Protection: Use all means necessary to protect the materials of this Section before, during, and after installation and to protect the work and materials of all other trades.
- C. Replacements: In the event of damage, immediately make all repairs and replacements to the approval of the Architect/Engineer and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 Metal Deck:

- A. Steel roof deck shall be primed, painted metal decking. Deck shall conform to ASTM:A611 Grade C, or equal, having a minimum yield strength of 33,000 psi to match existing.
- B. Steel roof deck shall be as manufactured by U.S. Steel, Vulcraft, Wheeling, or approved equal.

PART 3 - EXECUTION

3.01 Installation:

- A. Metal Deck
 - 1. Steel roof deck shall be anchored to the structural members directly through bottom of the rib by using self-drilling screws.
 - 2. Fasteners shall be a maximum 12" o. c. at ends and intermediate supports of each deck sheet.
 - 3. For spans greater than 5 feet, side laps shall be fastened together not exceeding 3 feet center to center between supports.
 - 4. Ensure that fasteners do not penetrate conduit or miscellaneous piping located at bottom of the decking.
 - 5. Place deck in straight alignment for entire length of run with adjoining deck units.
 - 6. Place deck units flat and square, secured to adjacent framing without warp or excessive deflection.
 - 7. Cut and neatly fit deck around rooftop projections.

3.02 Verification:

- A. Upon completion of the installation in each area, visually inspect and verify that all components are complete and properly installed. Verify that fasteners are properly located and securely anchored.

- END OF SECTION -

Section 06 10 53

ROUGH CARPENTRY

PART I - GENERAL

1.01 Description:

- A. Work included: Install all wood nailers and plywood as indicated on the drawings.

1.02 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 the acceptance or rejection of rough carpentry, the Architect/Engineer will make no allowance for lack of skill on the part of workers.

1.03 Related Work:

- A. Section 07 22 16 Roof Board Insulation

1.04 Product Handling:

- A. Delivery and Storage:
 - 1. Coordinate storage of materials with Owner and Architect/Engineer.
 - 2. Store all materials in an approved manner, up off the roof deck or ground, and protected from exposure to the elements
- B. Protection:
 - 1. Use all necessary means to protect the materials in this section before, during, and after installation, and to protect the work and materials of all other trades.
- C. Replacement:
 - 1. 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

2.01 Nailers and Framing:

- A. Nailers and framing are to be non-preservative treated and have less than 19% moisture content at the time of installation and when roofing is installed.
- B. Approved Materials:
 - 1. Douglas Fir
 - 2. Eastern Pine
 - 3. No. 2 Western Hemlock
 - 4. No. 3 Southern Pine
 - 5. Spruce-Pine-Fir
- C. Size to be as necessary to match height of new materials.

2.02 Plywood:

- A. 3/4" CDX exposure 1 or better, APA rated sheathing, non-preservative treated.

2.03 Fasteners:

- A. Furnish all fasteners and/or anchoring devices for the entire project, which shall include such items as nails, screws, bolts, anchors and similar items.
 - 1. All bolts shall have standard threads and be complete with washers and nuts.
 - 2. Exterior exposed nails and screws shall be hot-dipped galvanized.
- B. Anchoring devices shall be of the proper type and size for intended use and shall be of adequate design to achieve substantial and positive anchorage unless otherwise indicated.
 - 1. Bottom nailer and blocking anchored to masonry or concrete:
 - a. Fasteners shall be 3/8" in diameter minimum, with corrosion-resistant coating.
 - b. Fasteners shall be counter-sunk heads.
 - c. Fasteners shall be installed as recommended by the manufacturer
 - 2. Wood assemblies, such as wood cants, top nailers and other built-up wood members, shall be anchored with common nails or wood screws having at least 1-1/2" anchoring penetration, spaced in 2 staggered rows at 12" on center for each row. All other nailing shall be at Contractor's discretion for a rigid and secure installation.
 - 3. Plywood shall be anchored to concrete or masonry with threaded masonry screw fasteners or expansion anchors.
 - a. Fasteners shall be 1/4" in diameter minimum, with corrosion-resistant coating.
 - b. Fasteners shall have counter-sunk heads.
 - c. Fasteners shall be installed as recommended by the manufacturer.

- d. Approved products:
 - (1) Tapcon[®] by ITW Buildex
 - (2) Zamac Nailin[®] by Powers Fastners Inc.
 - (3) Approved alternate
- 4. Plywood shall be anchored to steel with self-tapping, case-hardened screws.
 - a. Screws shall have a flat, counter-sunk head.

PART 3 - EXECUTION

3.01 Nailers:

- A. Nailers are to be installed to match the height of the new insulation.
- B. All lumber is to be installed with joints true and tight.
- C. Bent or twisted fasteners are to be removed and replaced.
- D. Nailers shall be anchored to meet FM 1-49 requirements.
- E. Fasteners are to be spaced a maximum of 24" on center for nailers with a minimum thickness of 2" nominal, and 12" on center for all nailers less than 2" nominal thickness.
- F. Anchoring devices shall consist of the following:
 - 1. Masonry and/or concrete surfaces shall have wood nailers anchored direct spaced not greater than 36" on center.
 - 2. Structural steel flanges shall have wood nailers anchored direct with minimum 3/8" diameter bolts, spaced not greater than 36" on center. Wood structural support members shall be anchored with 3/8" diameter bolts at point of each bearing. Steel deck (light gauge) surfaces shall have wood nailers anchored direct with 2 rows of 1/4" diameter metal lag-type and/or pan-head No. 12 screws spaced not greater than 12" on center for each row (staggered).

3.02 Plywood:

- A. Vertical surfaces on perimeters, walls and curbs.
 - 1. Unless otherwise noted, secure plywood with two rows of fasteners 16" on center, staggered.

3.03 Clean-Up:

- A. Premises are to be kept in a neat and orderly condition.
- B. After installation of all rough carpentry, Contractor is to remove all construction debris and equipment from job site.

- END OF SECTION -

Section 07 22 16

ROOF BOARD INSULATION

PART 1 – GENERAL

1.01 Description:

- A. Work included:
 - 1. Provide and install all roof and deck insulation and insulation fasteners as shown on the roof plan and detail drawings.

1.02 Quality Assurance:

- A. Standards: Comply with standards specified in this section and as listed in the general requirements.
- B. Qualifications of manufacturer: Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacture of similar items and with a history of successful production acceptable to the Architect/Engineer.
- C. Qualifications of Contractor: The Contractor and contract personnel shall be currently approved by the manufacturer of the approved products as qualified to install the materials of this section.
- D. Qualifications of Installers: Use an adequate number of skilled installers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section.
- E. Roof decks and roof coverings shall be designed for wind loads in accordance with Chapter 16 and Sections 1504.2, 1504.3 and 1504.4. [IBC 1504.1]
- F. Roof coverings installed on roofs in accordance with Section 1507 that are mechanically attached or adhered to the roof deck shall be designed to resist the design wind load pressures for components and cladding in accordance with Section 1609. [IBC 1504.3]

1.03 Related Work:

- A. Section 07 53 23 Fully Adhered EPDM Roofing

1.04 References:

- A. Materials used in this section shall be listed in the latest editions of the following:
 - 1. Factory Mutual Approval Guide.

2. Underwriters Laboratories, Inc. - building materials directory.
 3. The NRCA Roofing and Waterproofing Manual, 5th Edition – National Roofing Contractors Association
- B. Roof insulation must meet the requirements of FM 4450 or UL 1256.

1.05 Submittals:

- A. General: Comply with the provisions of Section 01 33 00 Submittal Procedures and Section 01 32 16 Construction Progress Schedules.
- B. Product Data: Within ten (10) calendar days after award of contract, submit:
1. Complete material list of all items proposed to be furnished and installed under this section.
 2. Manufacturer's specifications and other data required to demonstrate compliance with specified requirements.
 3. Manufacturers recommended methods of installation.
 4. When approved by the Architect/Engineer, the manufacturer's recommended methods of installation (unless superseded by the specifications) will become the basis for accepting or rejecting the actual installation.

1.06 Product Handling:

- A. Delivery and storage: Deliver materials to the job site in original, unopened containers no sooner than five (5) calendar days prior to start of job. Materials to be stored up, off of the roof deck or ground, and covered with a weatherproof covering anchored sufficiently so as to resist wind blow-off. Only those materials necessary to accomplish two days' work are to be stored on the roof.
1. Contractor is responsible for all materials delivered to job site until completion of project.
 2. When storing materials on the roof, do not over-stress deck.
- B. Protection: Use all means necessary to protect the materials of this section before, during, and after installation and to protect the work and materials of all other trades.
- C. Replacements: In the event of damage, immediately make all repairs and replacements to the approval of the Architect/Engineer and at no additional cost to the Owner.

1.07 Product Handling:

- A. Work is to be performed on a daily basis, with each section completed before progressing to the next day's work.

- B. Completion of work shall be defined as the installation of all specified substrate preparation, vapor retarder (if required), insulation, and membrane completely sealed at perimeters, curbs, and penetrations.

1.08 “R” Values:

- A. Isocyanurate insulation thermal values shall be determined in accordance with ASTM C1303.
- B. The project shall have a minimum R-value of 30.

PART 2 - PRODUCTS

2.01 General:

- A. Minimum product requirements have been listed. All of these components must be used and bid.

2.02 Insulation Materials:

- A. Insulation to be of the type and minimum thickness as listed here or as shown on the detail drawings.
- B. Rigid Insulation
 - 1. Insulation is to be isocyanurate with glass membrane facer and conform to ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board, Type II, Class I, Grade 2.
 - 2. Thickness as shown on detail drawings.
 - 3. Approved Products:
 - a. ENERGY® 3 by Johns Manville
 - b. InsulBase by Carlisle Syntec
 - c. EnergyGuard by GAF
 - d. ISO 95+ GL by Holcim Elevate
 - e. Approved Equal
 - 4. Maximum board size:
 - a. Adhered: 4' x 4'
 - b. Mechanically Fastened: 4' x 8'
- C. Cover Board
 - 1. Glass faced gypsum sheathing manufactured for use in roofing consisting of glass mat facings bonded to a moisture resistant treated gypsum core.
 - 2. The board shall be pre-primed on one side to increase bond to roofing materials.
 - 3. Thickness as shown on drawings.
 - 4. Approved Products:
 - a. DensDeck Prime by Georgia Pacific.

- b. Approved Equal

2.03 Related Materials:

- A. Means of Attachment
 - 1. Screw-and-Plate
 - a. Corrosion-resistant, self-tapping, self-drilling screw with low profile head. Fasteners to be carbon steel with corrosion resistant coating. Fastener shall show no more than 10% red rust corrosion after 30 cycles or Kesternich testing.
 - b. Corrosion-resistant, factory-made plate.
 - c. Screw-and-plate type fastener to be Factory Mutual approved.
 - d. Approved Products:
 - 1) UltraFast by Johns Manville
 - 2) Roof Grip by ITW Buildex
 - 3) Insulation Fastener by OMG
 - 4) Dekfast by SFS Intec
 - e. Fasteners to be of sufficient length to penetrate top flange of deck by $\frac{3}{4}$ ". Provide varying lengths to minimize the length of the penetration. Length of fastener to be determined by the depth of the tapered insulation.
 - 2. Polyurethane Foam Adhesive
 - a. A two-part polyurethane foam manufactured for attachment of roof insulation boards.
 - b. Approved Products:
 - 1) Millennium by Millennium Adhesive Products
 - 2) Oly Bond by OMG
 - 3) Approved Equal

PART 3 - EXECUTION

3.01 General:

- A. The latest manufacturer specifications and installation techniques are to be followed.

3.02 Inspection:

- A. Examine the areas and conditions under which work in this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until such conditions have been corrected.

3.03 Surface Conditions:

- A. Surfaces scheduled to receive insulation are to be free of any standing water, dew, or loose debris.
- B. Substrate is to be smooth, free of sharp projections, and free of obvious depressions.
- C. All nailers shall be securely installed prior to insulation.

3.04 Job Conditions:

- A. Protection:
 - 1. Existing work shall be properly protected from damage or soiling during the process of removal of existing roofing and installation of new roofing material. Exercise special care at openings through roof and at roof edges. Spill no roofing materials on building surfaces. Any finished work damaged in the execution of work of this section, including lawns/shrubbery, shall be replaced, or restored to the original condition by this Contractor.
 - 2. Contractor shall protect existing roofing that is not scheduled to be removed with minimum 3/4" thick plywood protection board. Any damage to existing roof shall be repaired by Contractor.
- B. Workmanship:
 - 1. Roofing work shall be accomplished to fulfill the requirements of the drawings and specifications. Any specific directions furnished by the manufacturer regarding the application of their materials shall be strictly followed.
 - 2. After starting work, Contractor is responsible for complete moisture integrity of the roofing and flashing membrane. Therefore, this Contractor shall:
 - a. Not apply insulation or membrane under any conditions not suitable.
 - b. Exercise care to ensure adequate quantities of materials are used.
 - c. Maintain competent supervisor at the work site, with authority to discard unsuitable materials or remove unsatisfactory workers.
 - d. Observe all precautions involving the storage and handling of roofing materials.

3.05 Steel Deck Construction:

- A. Rigid insulation to be loosely laid with all joints staggered and tightly butted. Insulation board to be cut to fit tightly around projections.
- B. Fasten insulation board with screw-and-plate type fasteners, minimum spacing to be one fastener every two square feet. If manufacturer's fastening requirements

exceed those of this section, then manufacturer's recommendations are to be followed.

- C. Ensure that fasteners do not penetrate conduit or miscellaneous piping located at bottom of the decking.

3.06 Concrete Deck Construction:

- A. Over clean and dry deck, apply manufacturers approved primer in a uniform manner and allow to dry.
- B. Rigid insulation to be loosely laid with all joints staggered and tightly butted. Insulation board to be cut to fit tightly around projections.
- C. Fasten insulation board with polyurethane foam adhesive, minimum spacing to achieve the wind uplift requirements of this specification section. If manufacturer's fastening requirements exceed those of this section, then manufacturer's recommendations are to be followed.

3.07 Polyurethane Adhesive Attachment:

- A. Assure substrate is free of dirt, grease and oil. Wet surfaces are unacceptable.
- B. Rigid insulation to be laid with all joints tightly butted. Insulation to be cut to fit tightly around projections.
- C. To substrate, apply fluid mixture in minimum 1" wide wet beads spaced maximum of 12" on center. If manufacturer's requirements exceed those of this section, then manufacturer's recommendations are to be followed.
- D. Board insulation shall be placed into the adhesive shortly after adhesive has reached its maximum rise and while still wet and tacky. Do not install insulation if adhesive is skinned-over.
- E. Insulation boards are to be "stepped in" to ensure complete adhesion. Allow adhesive to cure.
- F. Any gaps larger than 1/4" are to be filled with similar materials.

3.08 Wind Uplift Attachment Requirements:

- A. For mechanically fastened or polyurethane adhered roof systems, mechanical fastener and/or adhesive size and spacing shall be as recommended by system Manufacturer to meet the following uplift requirements:
 - a. Field-of-Roof FM Uplift Rating (Zone 1): 90 PSF
 - b. Perimeter FM Uplift Rating (Zone 2): 150 PSF
 - c. Corner FM Uplift Rating (Zone 3): 225 PSF

3.09 Verification:

- A. Upon completion of the installation in each area, visually inspect and verify that all components are complete and properly installed. Verify that fasteners are properly located and securely anchored.

3.10 Clean Up:

- A. The Contractor shall clear the construction areas and shall provide for the removal from the building site of all his construction debris.
- B. All debris shall be removed from the premises promptly and the construction area left clean daily. Keep all drains clear of debris and in proper order at the end of each working day.
- C. At the completion of the contract, the Contractor is to remove all excess materials and equipment related to his contract.

- END OF SECTION -

Section 07 53 23

FULLY ADHERED EPDM ROOFING

PART 1 - GENERAL

1.01 Description:

- A. The conditions of the construction contract and general requirements apply to the work specified in this section.
- B. Furnish and install single-ply (fully adhered) membrane roofing system as shown on drawings and herein specified including, but not necessarily limited to:
 - 1. Metal coping cap flashings, scuppers, downspouts, counterflashings, and miscellaneous sheet metal work incorporated into the work shall be installed and made watertight as a part of the work of this section.
 - 2. Installation of wood nailers, wood edge strips and plywood backers are specified in accordance with manufacturer's specifications and/or as shown on drawings. Contractor shall coordinate the installation of all carpentry work required for the roof system herein specified.

1.02 Related Work:

- A. Section 07 22 16 Roof Board Insulation
- B. Section 07 62 00 Flashing and Sheet Metal

1.03 Quality Assurance:

- A. Contractor/Applicator Qualifications:
 - 1. Single-ply membrane roofing system shall be applied by a contractor approved by the manufacturer of the single-ply membrane roofing materials.
 - 2. Contractor and contract workers shall have previous experience in applying at least three fully adhered EPDM single-ply membrane system.
 - 3. Contractor and/or workers not meeting the above criteria will not be considered for this project.
- B. Quality Control:
 - 1. The roof system shall comply with the guidelines of the Single-ply Roofing Institute in its "Wind Design Guide for Fully Adhered Single Ply Roofing Systems."
 - 2. The roof system shall comply with the recommendations of Factory Mutual Loss Prevention Data Sheet 1-29 particularly the Technical Advisory Bulletin on "Fully Adhered Roof Coverings."

3. Roof systems with built-up, modified bitumen, fully adhered or mechanically attached single-ply through fastened metal panel roof systems, and other types of membrane roof coverings shall also be tested in accordance with FM 4474, UL 580 or UL 1897. [IBC 1504.3.1]
4. Physical Properties: Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall demonstrate physical integrity over the working life of the roof based upon 2,000 hours of exposure to accelerated weathering tests conducted in accordance with ASTM G 152, ASTM G 155 or ASTM G 154. Those roof coverings that are subject to cyclical flexural response due to wind loads shall not demonstrate any significant loss of tensile strength for unreinforced membranes or breaking strength for reinforced membranes when tested as herein required. [IBC 1504.6]
5. Impact Resistance: Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall resist impact damage based on the results of tests conducted in accordance with ASTM D 3746, ASTM D 4272, CGSB 37-GP-52M or the "Resistance to Foot Traffic Test" in Section 5.5 of FM 4470. [IBC 1504.7]

C. Inspection:

1. Upon completion of the installation, an inspection shall be made by a field technical representative of membrane manufacturer to ascertain that the roofing system has been installed according to manufacturer's current published specifications and details.

1.04 Submittals:

A. Samples:

1. Submit for approval, samples of proposed materials prior to commencement of work.
2. Submit samples to the attention and address of the Owner's representative.

B. Shop Drawings:

1. Prepare and submit shop drawings of the single ply membrane system for Owner's and/or Architect/Engineer's review. Shop drawings are required for starting the re-roofing work and for final inspection of the warranted roof. Shop drawings shall be made by the single-ply membrane manufacturer or manufacturer's representatives. Shop drawings shall be approved and assigned a number by membrane manufacturer.
 - a. Shop drawings shall indicate perimeter of building roof area, area of membrane replacement, location and type of penetrations, perimeter and penetration details, special details and itemized listing of materials required under this section, including quantities.

- C. Certification:
 - 1. Immediately after award of contract, roofing contractor shall submit a list of materials in a letter format and documented evidence of conformance to specifications of proposed materials, complete with brand names, UL compliance and manufacturer's name of each product.
 - a. Submit a letter of compliance or certification from insulation and membrane manufacturers.

1.05 Product Delivery, Storage and Handling:

- A. Deliver material in manufacturer's original, unopened containers with manufacturer's labels intact and legible.
- B. Materials shall be stored as to protect them completely from damage by the elements and temperature.
 - 1. Store curable materials to be used in conjunction with the membrane, in a dry, protected area and between 60°F and 80°F. If exposed to lower temperature, restore to proper (minimum 60°F) temperature before using.
- C. Materials on ground and/or roof top (if approved by Owner) shall be protected with waterproof coverings and stored on raised platforms in such a manner to be completely off the ground or roof deck surface (use of pallets or similar type equipment will be acceptable).
 - 1. Waterproof covering shall be applied in a watertight manner and securely tied at the end of each working day.
 - 2. Use of the manufacturer's product protection wrapping is not acceptable for work site protection, and if required to prevent moisture accumulation, the wrapping shall be side or end-punctured or slashed before covering.
 - 3. No tears in the waterproof coverings will be permitted.
- D. Materials shall carry appropriate Underwriters Laboratories (UL) classification labels when delivered to the work site.

1.06 Guarantee/Warranty:

- A. System applicator shall furnish a single-ply membrane manufacturer's warranty to Owner, in duplicate, filled out properly and signed by duly authorized officer, stating that all material and workmanship for single-ply membrane roofing system will be free from defects of material and workmanship of any kind and shall make repairs and/or replacement at no cost to Owner for a period of not less than twenty (30) years from date of final acceptance by Owner and/or final inspection by system manufacturer. Also provide manufacturer's thirty (30) year material warranty. Submittals shall be within two (2) weeks after roofing completion.

- B. In addition to the system manufacturer's warranty and material warranty, roofing contractor shall guarantee the new carpentry work, roof insulation, and all new sheet metal work for a period of not less than two (2) years from date of final acceptance by Owner, against any failures associated with the entire roofing system and shall make repairs and/or replacement at no cost to Owner during this guarantee period. This supplemental guarantee shall be submitted in writing to Owner.
 - 1. Before final payment by Owner, contractor shall submit system manufacturer's warranties and his guarantee to the Architect/Engineer.
- C. Repairs shall be made within 24 hours of notification.

1.07 Field Documents:

- A. Roofing superintendent or supervisor shall have a copy of this specification and pertinent drawings at work site.

PART 2 - PRODUCTS

2.01 Materials:

- A. Single-Ply Roofing Membrane:
 - 1. Single-ply roofing membrane shall consist of 0.090" (90 mil) thick, fire rated calendared ethylene propylene diene monomer (EPDM).
 - a. The membrane thickness tolerance shall be between 0.081" and 0.099" for 90 mil (measured in accordance with ASTM D412).
 - b. Membrane shall be factory-fabricated in single sheet material measuring not less than 10' wide by 100' long or the longest sheet possible as determined by job conditions.
 - c. Rolls of single-ply membrane with factory defects such as creases, stretch marks, out of square, etc., will be rejected.
 - d. The EPDM membrane shall be non-reinforced.
 - 2. The membrane shall meet or exceed all requirements of ASTM D4637, Standard Specification for EPDM sheet used in single-ply roofing membrane.
 - 3. Approved Manufacturers:
 - a. Firestone Building Product Co., Carmel, IN
 - b. Johns Manville Corp, Denver, CO
 - c. Carlisle Syntec Systems, Carlisle, PA
 - d. Versico, Carlisle, PA
 - e. Approved Equal
- B. Related Materials:
 - 1. Related materials for the above single-ply membrane roofing system shall consist of the following or as recommended by the membrane manufacturer.
 - a. Membrane flashing shall be uncured EPDM.

- b. Bonding adhesive, splice cleaner, seam tape, "water cut-off mastic", molded pipe flashing, pourable sealer, reinforced universal securement system and all other related materials shall be compatible with materials with which it is to be used and shall be furnished by membrane manufacturer.
- C. Roof Drains:
 - 1. Coated cast iron roof drain with bottom outlet, deck clamp and cast iron dome.
 - 2. Approved Products:
 - a. Josam 21500
 - b. MIFAB R-1200 SD-STR

PART 3 - EXECUTION

3.01 Inspection:

- A. Owner will observe the roof installation. Contractor shall give Owner's construction representative one (1) week written notice in advance of starting roofing installation.

3.02 Job Conditions:

- A. Protection:
 - 1. Existing work shall be properly protected from damage or soiling during the process of removal of existing roofing and installation of new roofing material. Exercise special care at openings through roof and at roof edges. Spill no roofing materials on existing building surfaces. Any finished work damaged in the execution of work under this section, including lawns/shrubbery, shall be replaced or restored to the original condition by this contractor.
 - 2. Contractor shall protect existing roofing that is not scheduled to be removed with minimum 3/4" thick plywood protection board. Any damage to existing roof shall be repaired by contractor.
- B. Workmanship:
 - 1. Roofing work shall be accomplished with mechanics thoroughly skilled in the application of specified materials with workmanship to be done in such manner as to fulfill the requirements of drawings and specifications. Any specific directions furnished by the manufacturer regarding the application of his materials shall be strictly followed. The contractor shall provide and install all manufacturers product and detail enhancements required for issuance of the manufacturer's warranty.
 - 2. After starting work, contractor is responsible for complete moisture integrity of the roofing and flashing membrane, checking work installed on the roof and for providing properly applied roof which will ensure or maintain the integrity of the specified roofing guarantee/warranty. Therefore, this contractor shall:

- a. Not apply insulation or membrane under any conditions not suitable for the work.
 - b. Exercise care to ensure adequate quantities of materials are used.
 - c. Maintain competent supervisor continuously supervising the work, with authority to discard unsuitable materials or remove unsatisfactory workers.
 - d. Observe all precautions involving the storage and handling of roofing materials. Provide adequate amount of fire extinguishers at work site.
3. The following precautions shall be followed when applying the single-ply membrane system:
- a. Do not use oil base or plastic roof cement.
 - b. Do not allow waste products (petroleum grease, oil, solvents, vegetable or mineral oil, animal fat) or direct steam venting to come in contact with roofing systems.
 - c. Do not expose membrane or accessories to a constant temperature in excess of 180°F.
 - d. Cements and bonding adhesives contain petroleum distillates and are extremely flammable. Do not breathe vapors or use near fire.
 - e. Splice wash used in the splicing procedure is extremely flammable; do not use near fire or flame or in a confined or unventilated area. Dispense only from a UL listed or approved safety can.
 - f. Splicing and bonding surfaces shall be dry and clean.

3.03 Preparation of Surfaces and Materials:

- A. Roofing shall not start until roof surfaces are perfectly dry, firm, reasonably smooth, clean and free from dirt and foreign material. Deck shall be swept and/or vacuumed immediately before application.
- B. Under no conditions shall any roofing materials be applied before sunrise, or at any time when there are indications of moisture present (rain, mist, dew, frost or snow).

3.04 Installation of Insulation:

- A. Prior to installation of insulation, all surfaces shall be thoroughly examined, and all defects shall then be repaired in a manner acceptable to the Architect/Engineer.
- B. No more insulation shall be laid at any one time than can be completely covered with single-ply membrane on same day.
 - 1. Insulation which has damaged edges or has become broken, gouged or has similar defects, will not be allowed in the completed work.
 - 2. Small pieces (less than 1 square foot) used to fill open joints or voids will be rejected and new insulation panels shall be installed to compensate for such joints or voids.

- C. Roof insulation shall be installed with all joints staggered one-half the length of insulation panels. All insulation shall be neatly cut with edges or joints of insulation tightly butted and not less than ¼” gap at edges and penetrations.
- D. Refer to Section 07 22 16, “Roof Board Insulation” for type, taper and thickness.

3.05 Installation of Single-Ply Roofing Membrane:

- A. General:
 - 1. After insulation has been properly installed, checked for defects and cleaned, contractor shall install single-ply roofing membrane sheets in a straight smooth line without curving. Position adjoining sheets lapping edges a minimum of 6” and in such manner that direction of water flow is over and not against laps. Field laps shall form a watertight seal.
 - a. At end of each day’s work, a temporary water tie-off shall be applied and be removed cleanly when work is resumed.
 - b. If temporary water tie-offs are left for two days time, contractor shall check them daily for breaks and if any are found, repairs shall be made immediately.
- B. Reinforced Securement Strip:
 - 1. Reinforced securement strip shall be provided at the perimeter of each roof level, roof section, curb flashing, expansion joint and similar penetrations. Termination strips shall be mechanically fastened as detailed or recommended by membrane manufacturer using approved fasteners.
 - a. Top of mechanical fasteners shall be set flush with the top surface of the plate. Space mechanical fasteners a maximum of 6” on center.
- C. Roof Drains
 - 1. Remove any existing lead flashing and asphalt cement in preparation for water block sealant and membrane.
 - 2. Seal between membrane and drain base shall be water block sealant as shown on drawings.
 - 3. Roof drains must be sumped. Refer to detail drawings.
- D. Membrane:
 - 1. Over the insulation, install roofing membrane as follows:
 - a. Install EPDM membrane loose-laid over surface of insulation and allow to relax for a minimum of 30 minutes.
 - b. After membrane has been allowed to suitably relax, fold sheet back approximately 50%. Sheet fold shall be smooth and without wrinkles.
 - c. Apply bonding adhesive to surface of insulation and membrane evenly with no puddles or globs.

Note: Field adhesive must not be applied to seam area.

- d. Roll coated sheet into coated insulation surface with no wrinkles.

Note: Any wrinkles larger than 12" in length will be cut out and repaired, no exceptions.

- e. Sheet section will be "embedded" to achieve 100% contact.

E. Membrane Splicing:

1. Fold top sheet back and remove dirt and dust by brooming or wiping with clean rag. Clean both of the dry mating surfaces at the splicing area using clean natural fiber rags or natural sponges with "splice cleaner."
2. Apply seam tape in accordance with manufactures specifications. Seam tape shall be exposed 1/8" - 1/2" along length of splice.
3. Roll top sheet toward splice area along the entire length of splice. Allow sheet to fall freely into place. Avoid stretching and wrinkling, while brushing by hand toward the splice edge.
4. Roll splice with a 2" wide steel roller, using positive pressure, toward the outer edge of the splice.
5. All splice intersections must be overlaid with two layers of quick applied uncured EPDM flashing.
 - a. Apply sealant along the leading edge of the membrane splice cover 1/2" in all directions from the splice intersection and overlay with a 6" x 6" T-joint cover. A second layer of 12" x 12" quick applied T-joint cover is then to be installed.
 - b. When installing patch, apply single-ply caulk under the patch at T-joint intersection.
 - c. Both layers shall be centered over the splice intersection and sealed with continuous lap sealant.
 - d. Roll patches into seams with hand roller under pressure and crease into seams according to Manufacturer's application guide.

3.06 Installation of Flashing:

A. General:

1. Perimeter flashing, including curbs shall consist of EPDM flashing material using the longest pieces practical. All flashings and terminations shall be completed in accordance with manufacturer's recommendations.
2. Install a 6" wide pressure sensitive tape over all flashing to membrane splices.

B. Penetrations:

1. Flash all penetrations (pipes, conduits, vents, etc.) through the membrane.
 - a. Flash pipe with molded pipe flashings where possible.
 - b. Where molded pipe flashings cannot be installed, use field-fabricated pipe seals.
 - c. Seal all edges with continuous lap sealant.

3.07 Metal Counterflashing:

- A. Install metal counterflashing as per detail drawings. Refer to Section 07 62 00 Flashing and Sheet Metal.

3.08 Inspection Procedures:

- A. After roofing has been completed, this contractor shall if directed, cut out samples from roof, at places directed by Architect/Engineer and in his presence for the purpose of inspection. All cuts shall be sealed in plastic bags immediately after removal from roof, and taken to a testing laboratory for complete analysis. The contractor shall then fill in space cut out with insulation and membrane according to the original specifications.
- B. If roof membrane is found, as determined by samples cut out, to be inferior to that specified or to contain less material than is specified or otherwise not in conformity with specifications, the roofing shall be removed and replaced with work which is in accordance with this specification.
- C. Any costs for testing and/or necessary re-testing are to be borne by roofing contractor.

3.09 Clean Up:

- A. Upon completion of the work, remove all excess material, debris, or trash resulting from this work. Leave completed surfaces clean and free from any defects of material or workmanship.
- B. Leave building and work site in a neat, clean and undamaged condition.
- C. Clean both interior and exterior surfaces which were soiled due to the work of this section.
- D. Repair or replace any damaged landscaping or improvements to original condition.

- END OF SECTION -

Section 07 62 00

FLASHING AND SHEET METAL

PART 1 - GENERAL

1.01 Description:

- A. Furnish and install all coping, flashing and sheet metal work as shown on drawings and herein specified.
- B. Installation of work shall start not later than 4 working days after a roof section of the re-roofing system, including composition flashings, has been completed. In order to avoid any delays, all work shall be closely coordinated with the roofing work.

1.02 Quality Assurance:

- A. Standards: Comply with standards specified in this section and as listed in the general requirements.
- B. Qualifications of manufacturer: Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacture of similar items and with a history of successful production acceptable to the Architect/Engineer.
- C. Qualifications of Contractor: The Contractor and contract personnel shall be currently approved by the manufacturer of the approved products as qualified to install the materials of this section.
- D. Qualifications of Installers: Use an adequate number of skilled installers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section.
- E. Prior to request for final inspection, contractor shall have inspected all gasketed fasteners and supplied certification letter that all gasketed fasteners were installed and inspected by contractor as per the Contract Documents.

1.03 Related Work:

- A. Drawings and general provisions of the contract apply to this section.
- B. Related sections:
 - 1. Section 07 51 14 Asphalt Built Up (Five Ply) Roofing Gravel Surfacing

1.04 References:

- A. Materials used in this section shall be listed in the latest editions of the following:
 - 1. Factory Mutual Approval Guide.
 - 2. The NRCA Roofing and Waterproofing Manual, 5th Edition – National Roofing Contractors Association
 - 3. The current edition of the *Architectural Sheet Metal Manual* as published by the Sheet Metal and Air Conditioning Contractors National Association, Inc., (SMACNA) shall govern where applicable, unless otherwise specified.
 - 4. Low slope membrane roof metal edge securement except gutters shall be tested for wind resistance in accordance with ANSI/SPRI ES-1.

1.05 Submittals:

- A. General: Comply with the provisions of Section 01 33 00 Submittal Procedures and 01 32 16 Construction Progress Schedules.
- B. Shop Drawings: If requested by the Architect/Engineer, prepare and submit shop drawings of proposed material for architect's/engineer's review, including full-size drawings of all profiles and details of all connections, expansion joints, reinforcement, anchors and other pertinent features.
- C. Product data: If requested by the Architect/Engineer, submit manufacturer's product data on all pre-fabricated metal roof flashing sections, complete with all pertinent information, finishes and installation instructions.
- D. Samples: In lieu of shop drawings above, Contractor may submit full-size samples in duplicate of all required profiles and details.
- E. As part of the contractor's construction submission package, contractor shall submit the following for Architect/Engineer review. The Contractor shall submit the below information to the building department if requested:
 - 1. Product data, including ASTM D2137 & D573 results.
 - 2. Manufacturer recommended installation torque.
 - 3. Contractor's quality control and assurance program.
 - 4. Certification letter from Contractor.

1.06 Product Handling:

- A. Delivery and storage: Deliver materials to the job site in original, unopened containers no sooner than five (5) calendar days prior to start of job. Materials to be stored up, off of the roof deck or ground, and covered with a weatherproof covering anchored sufficiently so as to resist wind blow-off. Only those materials necessary to accomplish two days' work are to be stored on the roof.
 - 1. Contractor is responsible for all materials delivered to job site until completion of project.

2. When storing materials on the roof, do not overload deck.
- B. Protection: Use all means necessary to protect the materials of this section before, during, and after installation and to protect the work and materials of all other trades.
- C. Replacements: In the event of damage, immediately make all repairs and replacements to the approval of the Architect/Engineer and at no additional cost to the Owner.

1.07 Scheduling:

- A. Work is to be performed on a daily basis, with each section completed before progressing to the next day's work.
- B. Completion of work shall be defined as the installation of all specified roof preparation, insulation, underlayment, flashings, counterflashings, sheet metal, fasteners, and caulking.
- C. Contractor shall complete roofing work on a daily basis unless specifically directed otherwise by the Architect/Engineer.

PART 2 - PRODUCTS

2.01 General:

- A. Minimum product requirements have been listed. All of these components must be used and bid.

2.02 Galvanized Sheet:

- A. Sheet metal shall be hot-dipped galvanized steel sheets conforming to ASTM: A653 using Architect/Engineer approved manufacturer. Weight of galvanized coating shall be not less than 1.25 ounces per square foot, "commercial," Unless otherwise indicated, galvanized sheet metal shall not be lighter than 24-gauge (0.0250 inch).
- B. Accessories shall be zinc-coated.

2.03 Soldering Materials:

- A. Solder:
 1. Solder to comply with ASTM: B32, composition 50% tin and 50% lead; 60% tin and 40% lead for lead-coated copper.

- B. Flux:
 - 1. As approved by the manufacturer.

2.04 Pre-Coated Sheet Metal:

- A. Pre-coated metal shall be minimum 24-gauge commercial quality steel with a hot-dipped, galvanized, primed, and fluoropolymer-type finish.
- B. Exposed surfaces shall have a "smooth" -type finish with color as selected by Owner from manufacturer's standard.
 - 1. All exposed surfaces shall be protected with a stripable plastic-type film.
 - 2. Exposed fasteners shall have gasketed, pre-coated heads with matching color. Provide touch-up paint for exposed edges and abraded areas.
- C. Approved Products:
 - 1. UNA-CLAD by Firestone Building Products
 - 2. Carlisle Metal Products by Carlisle Syntec.
 - 3. Pac-Clad by Peterson Aluminum Corp.
 - 4. Approved Equal.

2.05 Pre-Coated Wall Panels:

- A. Panels shall be 12" wide with flush seam secured to underlying wall 12" oc.
 - 1. Approved Products: UNA-CLAD UC 500 by Firestone Building Products or approved equal.

2.06 Counterflashing at Wall Curbs:

- A. Counterflashing shall be designed and fabricated in minimum 96 inch lengths where job dimensions allow (lesser lengths at curbs). Skirt member shall be of size indicated with bottom edge folded under ½ inch, fabricated in such manner as to hold the bottom firmly against the flashings, and formed to fit field conditions. Skirt members, when installed, shall be securely fastened with gasketed screws and/or fasteners as detailed.
- B. Coping cover plates shall be 6 inches wide, and counterflashing shall have S-slip end joints provided, as detailed, and be fabricated of same gauge and material as flashing. Furnish complete with a continuous ribbon of flashing sealant as shown on details.

2.07 Formed Drip Edge Metal:

- A. Steel minimum 24 gauge hot dipped galvanized with face coating polyvinylidene fluoride resin-base finish (Kynar 500 or Hylar 5000).
- B. Form accurately to details.

- C. Profiles, bends and intersections shall be even and true to line.

2.08 Pipe or Vent Jackets:

- A. Pipe or vent jackets shall be a frost-proof type with a lead cap, and fabricated of galvanized metal designed for use on flat roof construction. Verify at work site for quantity and size.
 - 1. 24 gauge galvanized steel base.
 - 2. Flashing base shall be at least 18 x 18 inches.
- B. Approved Products:
 - 1. No. 1-F flat plumbing vent flange by F. J. Moore Manufacturing Company.
 - 2. Approved Equal.

2.09 Related Materials:

- A. Fasteners shall be of adequate design to achieve substantial and positive anchorage.
 - 1. Nails and fasteners including rivets, screws and bolts shall be zinc-coated or stainless steel.
 - a. Nails for wood shall be flathead, barbed, not less than #12 gauge, one-inch long.
 - 2. Nails for felt shall be stainless steel or zinc-coated type with one (1) inch caps.
 - 3. Nails for securing metal pan clips shall be zinc-coated ring-shanked with 3/8" diameter heads.
- B. Gasketed Fasteners:
 - 1. Provide gasketed screws to secure sheet metal to create a weather-resistant exterior envelope. Gasketed fasteners installed in accordance with manufacturer recommendations/requirements shall comply with IBC 1403.
 - 2. Gasket material shall be EPDM, vulcanized to the metal to establish a bond that assures the EPDM will not separate from the metal.
 - 3. Screws shall be corrosion resistant and painted the same color to match the counterflashing.
 - 4. Fasteners shall only be used at vertical surfaces, a minimum of 6-inches above horizontal surfaces.
 - 5. Gaskets shall be considered "non-brittle" at -40° as per ASTM D2137. Gaskets shall have been tested per ASTM D573 and be heat resistant.
 - 6. Screws shall be secured with sufficient torque to secure the sheet metal and maintain the seal weather-tight in accordance with the manufacturer's requirements/recommendations.
 - 7. Screws shall be secured utilizing a torque adjustable or depth sensitive tool.

- C. Joint Filler:
 - 1. Joint filler and backup shall be an expanded polyethylene rod and backup. Material shall be at least 25% larger in diameter or thickness than opening.
 - 2. Approved products:
 - a. Ethafoam SB sealant backer rod by Dow Chemical Company.
 - b. Approved Equal

- D. Caulking sealant for exposed joints shall be a one-component polyurethane sealant conforming to Federal Specification TT-S-00230C(2), Type II, Class A or B.
 - 1. Approved Products:
 - a. Tremco Vulkem 116
 - b. Sika Sikaflex 1a
 - c. Sonneborn Sonalastic Np1
 - d. Approved Equal

PART 3 - EXECUTION

3.01 General:

- A. The latest manufacturer specifications and installation techniques are to be followed.

3.02 Inspection:

- A. Examine the areas and conditions under which work in this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until such conditions have been corrected.

3.03 Job Conditions:

- A. Protection:
 - 1. Existing work shall be properly protected from damage or soiling during the process of removal of existing roofing and installation of new roofing material. Exercise special care at openings through roof and at roof edges. Spill no roofing materials on building surfaces. Any finished work damaged in the execution of work of this section, including lawns/shrubbery, shall be replaced or restored to the original condition by this Contractor.
 - 2. Contractor shall protect existing roofing with minimum 3/4 inch thick plywood protection board. Any damage to existing roof shall be repaired by Contractor.

- B. Workmanship:
 - 1. Flashing and sheet metal work shall be accomplished to fulfill the requirements of the drawings and specifications. Any specific directions furnished by the manufacturer regarding the application of their materials shall be strictly followed.

3.04 Installation of Formed Sheet Metal:

- A. All flashing and sheet metal work shall be installed in accordance with approved shop drawings and details, with all work true and in perfect alignment. Intersections of work which cannot be shop-fabricated shall be coped or mitred to the exact profile of the member to which it intersects and be fully and continuously sealed to a watertight condition. All gasketed screws shall be drawn up tight and in full gasket contact with the flashing member, ensuring a rigid and secure installation. All hold-down clips shall be solidly anchored into backup construction.
- B. Cleats or keepers shall be continuous 20 gauge galvanized steel fastened 6" on center with 1 1/4" minimum galvanized steel roofing nails.
- C. Ribbons of flashing sealant shall be applied to all non-soldered joints or seams, as required or as indicated on drawings. Keep all exposed surfaces of metal work free from sealant, and remove any excess immediately. All flashing sealant shall be applied in accordance with manufacturer's recommendations.
- D. Inserts for counterflashings shall be saw-cut into concrete, stone or joints of the masonry wall, as shown on detail drawing. Metal insert piece shall be held in place with gasketed fasteners spaced not over 12 inches on center. In crevice, install rod stock, if required, and then apply sealant material.
- E. Coping and cant edge metal shall be engaged on a continuous cleat or keeper on the outside and fastened on the inside with 1 1/2" minimum galvanized steel hex head screws with gasketed washers installed 18" on center.
- F. Embedded edge metal shall be engaged on a continuous cleat or keeper on the outside and fastened with 1 1/4" galvanized steel roofing nails in two rows 1/2" apart, 3" on center, staggered.

3.05 Fabrication and Manufacture of Formed Sheet Metal:

A. Fabrication Procedures:

1. All sheet metal components shall be fabricated in accordance with the best standards of workmanship of the trade and with the recommendations previously cited in the SMACNA manual, unless otherwise indicated. Form all sections as detailed on the approved shop drawings or in accordance with approved samples. Lines, rises and angles shall be sharp and true. Plain surfaces shall be true and free from waves or buckles. The various sections shall be uniform and the joints at corners shall be rigidly secured. All exposed edges, unless otherwise indicated, shall be returned. Provide for contraction and expansion.

B. Soldering:

1. Soldering must be completed the same day seams are locked and folded together. Phased construction is not acceptable.
2. Remove factory-applied coatings in the area to be soldered, from materials such as alloy-coated copper or alloy-coated stainless steel. Use solvent recommended by manufacturer.
3. Mechanically clean, flux, and smoothly pre-tin with solder edges of sheets and other locations to be soldered. Tinning shall be thin, uniform in thickness, and 1 ½" wide on both sides of sheet at folded locked seam locations.
4. Immediately prior to joining pieces to be soldered, mechanically clean pre-tinned surfaces, wipe clean, dry, and fully coat with flux. Use least corrosive flux suitable for given application.
5. Slide pieces together and neatly dress down with a block of wood and mallet and/or dead-blow hammer.
6. Perform soldering with heavy soldering coppers of blunt design, properly prepared and tinned before using. They shall weigh not less than 10 lbs. per pair, except when acetylene gas-heated soldering copper torch is used, copper itself shall weigh not less than 1.25 lbs. Soldering with torch alone is not acceptable.
7. Perform soldering slowly with well heated copper. Thoroughly heat surfaces to be soldered. Use heated surfaces rather than the soldering copper, to melt the solder and draw it into the seam.
8. Use ample solder. Seam shall show at least one full inch of evenly flowed solder.
9. Whenever possible, solder in flat position. At sloped seams, start down-slope and work up-slope. Solder seams a second time on slopes equal to or greater than 45 degrees.
10. Neutralize and remove flux residue as recommended by the flux manufacturer and the American Welding Society. This may include items such as mechanical removal, hot acidified water wash, water and washing soda (sodium carbonate) wash and clean water rinse after soldering.

- C. Counterflashing at Wall and Curbs:
1. Counterflashing shall be designed and fabricated in minimum 96-inch lengths where job dimensions allow (lesser lengths at curbs). Skirt member shall be of size indicated with bottom edge folded under ½ inch, fabricated in such manner as to hold the bottom firmly against the flashings, and formed to fit field conditions. Skirt members, when installed, shall be securely fastened with gasketed screws and/or fasteners as detailed.
 2. Coping cover plates shall be 6 inches wide, and counterflashing shall have S-slip end joints provided, as detailed, and be fabricated of same gauge and material as flashing. Furnish complete with a continuous ribbon of flashing sealant as shown on details.
- D. Expansion Joint Cover Flashings:
1. Expansion joint cover flashing shall be designed for easy removal, and fabricated in minimum 96-inch lengths. Flashing shall be formed to provide complete watertightness to expansion joint assembly. Covers shall be formed with a sloping top. Skirt flashings shall be of size indicated with bottom edge folded under ½ inch, fabricated in such manner as to hold bottom firmly against flashing, and formed to fit contour or slope of roof. Both cover and skirt members when installed shall be securely fastened with gasketed screws.
 2. Joint cover plates shall be 6 inches wide and be fabricated of same gauge and materials as flashing. Furnish complete with continuous ribbons of flashing sealant as detailed.
- E. Leader Heads and Overflow Scuppers:
1. Leader heads shall be formed of the same gauge material as the perimeter flashing into which they frame.
 2. Sheets forming the leader head shall be riveted together and soldered to form a watertight pan. Leader head lining shall extend through and project outside the fascias. On the roof side, the leader head lining shall be of sufficient length to be built into the roofing at least 6 inches. Provide a 3-inch long outlet tube in bottom of leader head for attaching downspout.
 3. Scuppers shall be fabricated similar to leader heads, except scupper lining shall extend through and project outside the walls, leaving about ½-inch clearance between masonry and lining.
- F. Open-Faced Downspouts:
1. Open-faced downspouts shall be formed of the same gauge and material as the gutter and/or leader head to which they connect.
 2. The downspout shall be open-faced with exposed edges hemmed. End joints shall telescope 1-1/2 inches and be riveted or screwed. Attach to wall with 1/8-inch thick strap brackets not over 5 feet apart and designed to support downspout approximately 1 inch from face of wall. Provide all necessary elbows, offsets or other fittings required.

3. Provide braces five feet on center starting five feet above grade.
4. Downspouts shall extend within 12" of grade.

G. Fascias:

1. Fascia shall be fabricated in minimum 96-inch lengths. The inner flange shall extend onto the roof not less than 4 inches, and be pre-drilled for nails for anchoring through the roofing membrane. Fascia portion of standing ridge shall be formed to accommodate complete concealment of wood blocking with a continuous formed bottom edge drip which is folded back and under a minimum of 3/4 inch, and extending from face at least 1 inch.

H. Sleeved Flashings:

1. Furnish and install sleeved flashings for mechanical pipes and electrical conduits. Sleeves shall have a 6-inch wide flange built into roofing, and all joints and seams shall be soldered thoroughly watertight. Provide umbrella flashings. Verify the quantity required and size in the field.

I. Pitch Pans:

1. Furnish and install pitch pan flashings for mechanical pipes, electrical conduits and other penetrations. Pitch pans shall have a 4-inch wide continuous flange built into roofing, and all joints and seams shall be soldered thoroughly watertight. Provide umbrella flashings. Verify the quantity required and size in the field.

J. Splash Blocks:

1. All splash blocks shall be as called for on roof plan or details.

3.06 Surface Cleaning:

- A. All sheet metal work upon completion shall be thoroughly clean of all flux, scraps and dirt. Excess flux shall be neutralized by washing with 5 to 10 percent solution of washing soda. After cleaning, metal shall be washed off with clean water.
- B. Remove protective film, if any, from the exposed surfaces of the sheet metal promptly upon installation. Strip with care to avoid damage to finishes
- C. Clean the exposed metal surfaces of substances that would interfere with uniform oxidation and weathering.

3.07 Clean-Up:

- A. The Contractor shall clear the construction areas and shall provide for the removal from the building site of all construction debris.
- B. All debris shall be removed from the premises promptly and the construction area left clean daily.
- C. At the completion of the contract, Contractor is to remove all related equipment.

- END OF SECTION -

Section 07 92 00

SEALANTS & CAULKING

PART 1 - GENERAL

1.01 Summary:

- A. Includes but is not limited to
 - 1. Quality of sealants to be used on project including submittal, material, and installation requirements.
- B. Related sections
 - 1. Removing existing sealants and furnishing and installing of sealants is specified in sections specifying work to be caulked.

1.02 Submittals:

- A. Product Data
 - 1. Manufacturer's literature and installation recommendations for each product.
 - 2. Schedule showing where each product is to be used.
- B. Quality Assurance/Control
 - 1. Furnish certificate from manufacturer indicating date of manufacture.

1.03 Delivery, Storage, & Handling:

- A. Handle to prevent inclusion of foreign matter, damage by water, or breakage.
- B. Deliver and keep in original containers until ready for use.
- C. Do not use damaged or deteriorated materials.
- D. Store in a cool place, but never under 40° F.

PART 2 - PRODUCTS

2.01 Materials:

- A. Sealants
 - 1. Sealants provided shall meet manufacturer's shelf-life requirements.
 - 2. Exterior sheet metal & miscellaneous
 - a. Penetrations and joints in soffits and fascia
 - b. Roof vents & flues
 - c. Flashings

- d. Gutters
 - e. Approved Products:
 - 1) 791 by Dow Corning
 - 2) Narrow Joint Sealer by Schnee-Morehead Inc, Irving, TX
 - 3) Sikaflex-1a, Dymonic FC, Bondaflex PUR 25, Sonneborn NPI
 - 4) Approved equal
3. Color - As selected by the Owner from manufacturer's standard colors.
- B. Backing - Flexible polyurethane or polyolefin rod or bond breaker tape as recommended by the manufacturer for joints being sealed.

PART 3 - EXECUTION

3.01 Preparation:

- A. Remove existing sealants where specified. Surfaces shall be clean, dry, and free of dust, oil, grease, dew, or frost.
- B. Apply specified primer.
- C. Joint Backing
 - 1. Polyurethane rod for open joints shall be at least 1-1/2 times width of open joint, and of thickness to give solid backing. Backing shall fill joint so depth of sealant is no more than 3/8 inch.
 - 2. Apply bond-breaker tape in shallow joints as recommended by the manufacturer.

3.02 Application:

- A. Apply sealant with hand-caulking gun with a nozzle of the proper size to fit joints. Use sufficient pressure to ensure full contact to both sides of joint to full depth of joint.
- B. Tool joints immediately after application of sealant if required to achieve full bedding to substrate or to achieve smooth sealant surface.
- C. Depth of sealant shall be 1/4" minimum and 1/2" maximum, but never more than 1/2 or less than 1/4 of the joint's width.
- D. Do not apply caulking at temperatures below 40° F.
- E. Caulk open perimeters unless indicated otherwise.
- F. For EIFS, carefully check the system manufacturer's details and adhere to caulking details. Use specified material available from system installer.

3.03 Clean-Up:

- A. Immediately clean adjacent materials that have been soiled, before caulk sets. Use materials and methods recommended by the manufacturer.

- END OF SECTION -

Section 08 43 00

ALUMINUM FRAMED STOREFRONT WINDOW

PART 1 - GENERAL

1.01 Summary:

- A. Section Includes Tubelite aluminum storefront and all components and installation accessories supplied with the system.
 - 1. Tubelite TU14000 Series Storefront system with ultra-thermal barrier: 2" x 4-1/2" (dual thermal barrier)

1.02 Related Products:

- A. Division 07 92 00 – Joint Sealants

1.03 Administrative Requirements:

- A. Coordinate with installation of other components that comprise the exterior enclosure.
- B. Pre-installation Meeting:
 - 1. Attendees: Owner's Representative, Architect, General Contractor, Structural Engineer, Mechanical Engineer, Consultants, Storefront Installer. Storefront Manufacturer's Representative, structural support installers, and installers whose work interfaces with storefront and glazing.
 - 2. Agenda:
 - a. Review and finalize construction schedule.
 - b. Review code and project performance compliance documentation and testing requirements including product certification for energy (U-value, SHGC), condensation, ADA, acoustics, etc.
 - c. Review product specific mockups and field testing requirements.
 - d. Verify availability of materials, installer's personnel, equipment, and facilities required to maintain schedule.
 - e. Review means and methods related to installation, including manufacturer's written instructions.
 - f. Examine support conditions for compliance with requirements including alignment and attachment to structural members.
 - g. Review flashings, membrane interface with storefront, wall penetrations, openings, and conditions of other construction affecting this Work.
 - h. Review temporary protection requirements for during and after installation of this Work.

1.04 Performance Requirements:

- A. Design Wind Loads
 - 1. Provide aluminum storefront system with all structural components including but not limited to anchors and mullions based on the following wind load design pressures and the deflection and stress criteria of paragraph 1.04 B. Pressures based on Allowable Stress Design (ASD).
 - a. 50 psf positive and negative - typical zones
 - b. Basic Wind Speed of 90 mph
 - i. Exposure Category C.
 - ii. Importance factor IV.
 - c. Design criteria based on Minnesota State Building Code.

- B. Air, Water and Structural Performance:
 - 1. Air Infiltration Performance:
 - a. Shall not exceed 0.06 cfm/ft² at 6.24 psf static air pressure differential, when tested per ASTM 283.
 - 2. Water Infiltration Performance:
 - a. Static: No uncontrolled water entry at a 8 psf static pressure differential with water applied at a minimum rate of 5 gal/ft² hr when tested per ASTM E 331.
 - b. Dynamic: No uncontrolled water entry at 12 psf dynamic pressure with water applied at a minimum rate of 5 gal/ft²hr when tested per AAMA 501.1.
 - 3. Structural Performance at design loads:
 - a. System to withstand +/- 30 psf when tested per ASTM E330.
 - i. Maximum allowable deflection of L/175 of the clear span for spans up to 13'-6" or L/240 of clear spans plus 1/4" for spans greater than 13'-6" or an amount that restricts edge deflection of individual glazing lites of glass to 3/4" whichever is smaller.
 - 4. Structural Performance at 1.5x design loads:
 - a. System to withstand +/- 45 psf when tested per ASTM E330.
 - i. There shall be no permanent deformation of main frame members in excess of 0.2% of its clear span, glass breakage, or permanent damage to fasteners or anchors.
 - 5. Thermal Cycling:
 - a. There shall be no air and water infiltration exceeding primary performance requirements, buckling, stress on glass, edge seal failure, excess stress on structure, anchors and fasteners, or reduction in performance when tested in accordance with AAMA 501.5 at a temperature range of 0 °F to 180 °F. Interior ambient air temperature at 70°F (+/- 5 °F) for hot and cold cycles.

- C. Thermal Transmittance and Condensation Resistance Performance Requirements
 - 1. Thermal transmittance (U-factor) for window system shall not exceed .34 BTU/hr-ft²- °F per NFRC 100.
 - 2. Solar Heat Gain Coefficient (SHGC) for the window area shall not exceed .38 as determined in accordance with NFRC 200.

3. Condensation Resistance Factor (CRF) shall meet or exceed $69 CRF_{frame}$ and $68 CRF_{glass}$ as determined in accordance with AAMA 1503 Report Number C6111.01-116-46.

a. CRF performance data:

SYSTEM	CONDENSATION RESISTANCE FACTOR (CRF)	
	FRAME	GLASS
TU14000	69	68

1.05 Submittals:

- A. Product Data:
 1. Manufacturer’s literature for each specified system.
 2. Components within assembly, including material descriptions, component profiles, finishes, anchorage and fasteners, glazing, and internal drainage.

- B. Shop Drawings:
 1. Shop drawings must be prepared by a qualified engineering service under the employ of the installer.
 2. Include system dimensions, framed opening requirements and tolerances, affected related Work, anchorage, expansion and contraction joint location and details, and field welding required.
 3. Include scaled shop drawings showing detailed relationships with glazing, flashing, internal drainage, joinery, and provisions for thermal expansion.

- C. Design Data: Submit framing member structural and physical characteristics, engineering calculations, and dimensional limitations.

- D. Samples:
 1. System components: Submit corner samples, anchors, fasteners, trim, and other materials as requested by the architect.
 2. Finish: Submit [two] aluminum sheet stock samples [2” x 3”] for each finish type.

- E. Warranty: Submit manufacturer sample warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 Quality Assurance:

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with at least twenty years of documented experience.

- B. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State that the Project is located.

- C. Installer: Company approved by manufacturer and specializing in performing work of this section with at least 5 years of documented installation experience.
- D. Source Limitations: Obtain the storefront and all products listed in Section 1.02 from a single manufacturer.

1.07 Delivery, Storage and Handling:

- A. Materials to be packed, loaded, shipped, unloaded, stored and protected in accordance with AAMA CW-10.
- B. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.08 Field Conditions:

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of this Work to be performed according to manufacturer's installation instructions and warranty requirements.
- B. Field Measurements: Verify locations of structural members and wall opening dimensions by field measurements before fabrication of storefront framing and indicate measurements on Shop Drawings.
- C. Install sealant according to sealant manufacturer guidelines.
- D. Coordinate installation with other applicable trades.

1.09 Warranty:

- A. Aluminum Storefront Framing Warranty:
 - 1. Manufacturer agrees to repair or replace defective storefront components for a period of 10 years from the date of shipment.
- B. Finish Warranty:
 - 1. Warranty covers factory-applied organic and anodic finishes on exposed extruded aluminum surfaces without standing water accumulation, against peeling, checking, cracking, chalking and change of color, per applicable AAMA specifications.
 - i. AAMA 611 Class I: 10 years

PART 2 - PRODUCTS

2.01 Manufacturer:

- A. Basis of Design: Aluminum Framed Storefront
 - 1. Tubelite Inc. TU14000 Series Storefront: 2" x 4-1/2" (dual thermal barrier)

- B. Other manufacturers will be considered when the following conditions have been met.
1. Optional manufacturers must pre-qualify to bid not less than fourteen (14) days prior to the bid closing date.
 2. Complete details are submitted for review by the Architect showing compliance to the drawings and Contract Documents.
 3. Structural calculations, showing sizes of framing members and loads applied to the support structure, based on the design loads of this specification are submitted for review.
 4. Prospective manufacturers submit notarized certification that they have successfully performed in the phases of design, manufacture and installation of aluminum framed storefront window projects comparable in nature over at least the previous ten (10) years.

2.02 Aluminum Framed Storefront:

- A. Aluminum Framed Storefront: Factory or field fabricated, field glazed, factory finished aluminum, screw spline construction with infill and related flashings, anchorage and attachment devices.
1. System dimensions: 2” x 4-1/2”
 - a. Exterior face dimensions
 - i. Primary mullions: 2”
 - ii. Horizontal: 2”
 - iii. Optional: (1) Expansion mullion: 2-5/8”
 - b. Depth: 4-1/2”
 2. Glazing:
 - a. Position: Center Set, 1-3/4” from exterior plane of storefront frame
 - b. Thickness: 1”
 - c. Method: exterior glazed
 3. TU14000 thermal barrier
 - a. Primary frames: dual pour-debridge
 - b. Vertical snap filler: polyamide strut
 - c. Perimeter snap filler: dual pour-debridge
 4. Construction: screw spline

2.03 Finishes:

- A. Finish all exposed areas of aluminum storefront components in accordance with applicable AAMA Voluntary Finish Guide Specification:

SPECIFICATION	DESCRIPTION	DESIGNATION	COLOR
AAMA 611	Class 1 Clear Anodized, Eco-friendly etch (0.7 mils thick min)	AA-M10C21A41	Clear Anodized

- B. Combination anodic oxide and transparent organic coatings as defined in AAMA 612 are not equivalent substitutions for the AAMA 611 anodized finishes shown above due to surface hardness disparities.

- C. Applicator Qualifications: Certified by AAMA and listed on AAMA Verified Components List.
- D. Verify accuracy of components, quantities, and sizes prior to application of finishes.
- E. Applicator – Anodize Finishes
 - 1. Offer both standard eco-friendly (acid) and optional caustic (traditional) etching technologies.
 - 2. Utilize fully automated, computer-controlled process lines for consistency through Project.
 - 3. Utilize documented quality control protocol in accordance with AAMA 611 procedures.
 - a. Online quality assurance inspection:
 - b. Random sample check for color uniformity, maximum difference of 5AE.
 - c. Random coating thickness testing:
 - i. Class I clear and color anodize – 0.7 mils (18 microns)

2.04 Materials:

- A. Aluminum extrusions: Alloy 6063-T6 or 6063-T5 in accordance with ASTM B221, and extruded within commercial tolerances and free from defects that impair strength and/or durability.
- B. Primary extruded framing members will be a minimum 0.080" thick.
- C. Extruded or formed trim components will be a minimum 0.060" thick.
- D. Exposed Flashings: .040" thick aluminum sheet; finish matching framing members.
- E. Concealed Flashings: .040" thick aluminum sheet.
- F. Self Adhered Aluminum Coated Membrane Flashings: Grace Vycor Aluminum Self Adhered Flashing or equivalent compatible with fluid applied Air/Moisture Barrier.
- G. Structural Steel Reinforcement and anchors necessary to meet the performance requirements of 1.04.
 - 1. ASTM A36/A36M; galvanized per ASTM A123/A123M.
 - 2. Where galvanizing is not compatible with alloy of component parts, apply heavy coating of epoxy paint where necessary to prevent galvanic action with dissimilar materials.
- H. Galvanizing Repair Paint: High zinc content paint for over welds in galvanized steel, with dry film containing not less than 94 percent zinc dust by weight and in compliance with SSPC Paint 20.

- I. Thermal Barrier:
 - 1. Pour and debridge thermal barrier shall be a two part chemically curing polyurethane casting resin poured in place. specified. Thermal barrier extrusion pour cavities shall be mechanically lanced to secure the thermal break material. The aluminum bridge section must be removed to provide a nominal ¼” separation between exterior and interior metal surfaces.
 - 2. Continuous extruded polyamide with 25% glass fiber reinforcing, mechanically crimped into cross-knurled cavities

- J. Glazing and Sealant material:
 - 1. Setting blocks and Edge Blocking: Provide in sizes and locations recommended by GANA Glazing Manual. Setting blocks used in conjunction with soft-coat low-e glass shall be silicone.
 - 2. Glazing gaskets shall be EPDM, weather-resistant, and compatible with all materials in contact.
 - 3. All sealants shall comply with applicable provisions of AAMA 800 and/or Federal Specifications FS-TT-001 and 002 Series.
 - 4. Frame joinery sealants shall be suitable for application specified and as tested and approved by the storefront manufacturer.

2.05 Fabrication:

- A. Ensure joints and corners are flush, hairline and weatherproof, accurately fitted and secured.
 - 1. Prepare framework to receive anchors and hardware.
 - 2. Conceal fasteners and attachments from view.
 - 3. Reinforce framework as required for imposed loads.

- B. Expansion and Contraction: Fabricate to allow for thermal movement of materials when subjected to project temperature differential requirements.

- C. System Internal Drainage: Drain to exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
 - 1. Fabricate drainage system so weeps and flashings are integral to system and others are not required.

- D. Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.

- E. Provide for membrane interface as indicated on architectural drawings.

2.06 Components:

A. Glass:

1. Standard Certification Requirements:
 - a. Heat Treated Glass: ASTM C1048, with surface stress of 5,000 (+/-) 1500 psi.
 - b. Laminated Glass: Two lites interleaved with polyvinyl butyral (PVB). Units must meet criteria of ANSI Z97.1- 1984 and CPSC 16 CFR 1201 for safety glazing. Provide PVB layer of 0.060-in. for all glass units.
 - c. Insulating Glass: CBA rated by the Insulating Glass Certification Council (IGCC) when tested in accordance with ASTM E773 and ASTM E774. Dual edge seals with the secondary seal being silicone. Exterior lite of heat strengthened glass and interior lite of heat strengthened glass.
2. Performance Requirements:
 - a. Probability of breakage not to exceed 8/1000 for vertical glass and 1/1000 for sloped glass upon first application of design wind and live load pressures. For glass selection, design wind pressure for a one minute duration. For loads of longer duration use standard engineering practices for glass selection.
 - b. Probability of breakage due to anticipated thermal stress not to exceed 8/1000 for vertical glass and 1/1000 for sloped glass.
3. Glazing Unit Composition:
 - a. Insulated glass units are to be 1" overall thickness, VNE1-63, insulating coated glass as manufactured by Viracon.
 - i. Exterior Glass Ply: 1/4", Clear, heat strengthened.
 - ii. Coating: VNE-63 on # 2 Surface.
 - iii. Space: 1/2" Viracon VTS warm edge spacer and argon filled.
 - iv. Silicone: Black.
 - v. Interior Glass Ply: 1/4", Clear heat strengthened
 - b. Performance Requirements:
 - i. Visible Light Transmittance: 62%
 - ii. Solar Energy Transmittance: 24%
 - iii. Visible Light - Exterior Reflectance: 10%
 - iv. Winter U-Value: 0.25
 - v. Summer U-Value: 0.21
 - vi. Solar Heat Gain Coefficient: 0.28
 - vii. Light to Solar Gain Ratio: 2.21
 - viii. Shading Coefficient: 0.32
 - ix. Relative Heat Gain: 68
 - x. Solar Reflectance: 37%

B. Glazing

1. Glazing method shall be in accordance with manufacturer installation instruction and the GANA Glazing Manual for specified glass type, or as approved by the glass fabricator.
2. Refer to Section 08 80 00 for requirements.

PART 3 - EXECUTION

3.01 Verification of Conditions:

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of this Work.
- B. Notify Contractor in writing, with a copy sent to Owner and Architect, of any conditions detrimental to proper and timely completion of this Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Start of this Work shall indicate acceptance of areas and conditions as satisfactory by the Installer.

3.02 Installation:

- A. Preparation: Coordinate and furnish anchors, concrete inserts, sleeves, anchor bolts, and other accessories to be embedded in concrete or masonry construction or welded to structural steel. Coordinate delivery of these items to project site.
- B. Install aluminum storefront framing in accordance with manufacturer's installation instructions, reviewed product data, approved shop drawings, and as indicated on Drawings (per Professional Engineer review when applicable).
- C. Do not install damaged components.
- D. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- E. Provide alignment attachments and shims to permanently fasten system to building structure.
- F. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, [aligning with adjacent work].
- G. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
- H. Coordinate attachment and seal of membrane materials per architectural drawings. Refer to section 07 25 00.
- I. Install accessories with positive anchorage to building, weather tight mounting, provisions for thermal expansion, and coordinate installation with flashings and other components.
- J. Install glass in accordance with Section 08 80 00, using glazing method required to achieve performance criteria.

- K. Install perimeter sealant in accordance with Section 07 92 00.
- L. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.
- M. Tolerances:
 - 1. Maximum variation from plumb: [1/16"] every 3' non-cumulative, or [1/16"] per 10', whichever is least.
 - 2. Maximum Misalignment of two adjoining members abutting in plane: [1/32"].

3.03 Cleaning:

- A. Comply with AAMA 609 and 610 for methods, equipment, and materials to clean finished aluminum after installation and for subsequent periodic maintenance.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners, and wipe surfaces clean.
- C. Remove excess sealant from glass and aluminum by method acceptable to sealant and finish manufacturer.

3.04 Protection:

- A. Protect installed products from damage during subsequent construction.
- B. Protect anodized finishes from prolonged exposure to alkaline, such as lime in masonry mortar, or acidic and other corrosive materials.

- END OF SECTION -

Section 23 01 00

MECHANICAL WORK

PART 1 - GENERAL

1.01 Description:

- A. It shall be the responsibility of the roofing Contractor to retain the services of a mechanical Contractor to disconnect and reconnect mechanical equipment on the roofs where it becomes necessary to raise items of mechanical equipment to properly flash curbs or pipes.
 - 1. It shall be the responsibility of this Contractor to verify that air conditioning and miscellaneous equipment is in operational condition prior to his removal of same.
 - 2. In the event that roof top cooling units or miscellaneous equipment have to be lifted from the roof structure to accomplish the re-roofing work, Contractor shall make whatever arrangements necessary to safely remove these items from the roof and replace them upon completion of work.
 - 3. Any items damaged by this Contractor's work shall be repaired or replaced by him at no cost to the Owner.
- B. Contractor shall include all materials and labor necessary to extend duct work, piping, etc. as may be required.
- C. Upon replacement of equipment after re-roofing work is complete, Contractor shall reconnect all disrupted services to same and test equipment unit prior to turning it over to Owner.

1.02 Related Work:

- A. Section 07 51 14 Asphalt Built Up (Five Ply) Roofing Gravel Surfacing

1.03 Scheduling:

- A. Contractor shall co-ordinate this work with the Owner so as to keep the interruption of equipment operation to a minimum. Adequate lead time shall be provided.
 - 1. Owner shall familiarize Contractor with location of controls, equipment, etc. which affect his work.

PART 2 - NOT USED

PART 3 - NOT USED

- END OF SECTION -

Section 26 01 00

ELECTRICAL WORK

PART 1 - GENERAL

1.01 Description:

- A. It shall be the responsibility of the roofing Contractor to retain the services of an electrical Contractor to disconnect and reconnect electrical equipment on the roof where it becomes necessary to raise items of mechanical equipment to properly flash curbs or pipes.
 - 1. It shall be the responsibility of this Contractor to verify that air conditioning and miscellaneous equipment is in operational condition prior to removal of same.
 - 2. In the event that roof top cooling units or miscellaneous equipment need to be lifted from the roof structure to accomplish the re-roofing work, Contractor shall make whatever arrangements necessary to provide equipment, etc. to safely remove these items from the roof and replace them upon completion of work.
 - 3. Any items damaged by this Contractor's work shall be repaired or replaced by him at no cost to the Owner.
- B. Contractor shall include all materials and labor necessary to extend electrical conduit and wiring as may be required.
- C. Upon replacement of equipment after re-roofing work is complete, Contractor shall reconnect all disrupted services to same and test equipment unit prior to turning it over to Owner.

1.02 Related Work:

- A. Section 07 51 14 Asphalt Built Up (Five Ply) Roofing Gravel Surfacing

1.03 Scheduling:

- A. Contractor shall co-ordinate this work with the Owner so as to keep the interruption of equipment operation to a minimum. Adequate lead time shall be provided.
 - 1. Owner shall familiarize Contractor with location of controls, equipment, etc. which affect his work.

PART 2 - NOT USED

PART 3 - NOT USED

- END OF SECTION -