# SECTION 00 01 00
## TABLE OF CONTENTS

### DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
- 00 01 07  SEALS PAGE - ARCHITECTURAL
- 00 01 07.00  SEALS PAGE – STRUCTURAL
- 00 01 13  PROJECT DIRECTORY
- 00 50 00  CONTRACTING FORMS AND SUPPLEMENTS
- 00 72 01  AIA A201-2017 GENERAL CONDITIONS

### DIVISION 01 - GENERAL REQUIREMENTS
- 01 10 00  SUMMARY
- 01 20 00  PRICE AND PAYMENT PROCEDURES
- 01 22 00  UNIT PRICES
- 01 30 00  ADMINISTRATIVE REQUIREMENTS
- 01 40 00  QUALITY REQUIREMENTS
- 01 42 16  DEFINITIONS AND REFERENCE STANDARDS
- 01 50 00  TEMPORARY FACILITIES AND CONTROLS
- 01 60 00  PRODUCT REQUIREMENTS
- 01 70 00  EXECUTION AND CLOSEOUT REQUIREMENTS
- 01 73 29  CUTTING AND PATCHING
- 01 74 19  CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
- 01 78 00  CLOSEOUT SUBMITTALS

### DIVISION 02 - EXISTING CONDITIONS
- 02 41 09  SELECTIVE STRUCTURE DEMOLITION

### DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
- 06 10 00  ROUGH CARPENTRY

### DIVISION 07 - THERMAL AND MOISTURE PROTECTION
- 07 01 50.19  PREPARATION FOR RE-ROOFING
- 07 25 11  SELF-ADHERED MEMBRANE FLASHING
- 07 54 13  THERMOPLASTIC MEMBRANE ROOFING (TPO)
- 07 62 00  SHEET METAL FLASHING AND TRIM
- 07 92 00  JOINT SEALANTS
SECTION 00 01 07
SEALS PAGE

GENERAL

1.01 PROJECT

A. Project Name: ESD-112 - 2300 Building Re-Roof.

B. Address: 2500 NE 65th Avenue.

C. City: Vancouver, WA 98661.

1.02 ARCHITECT

A. Architect's Name: Ankrom Moisan Architects, Inc.

1. Portland Office:
   a. 38 NW Davis, Suite 300, Portland, Oregon 97209.
   b. Tel: 503-245-7100.
   c. Fax: 503-245-7710.

2. Project Manager: Lori Kellow.

3. Tel: 503) 977 5222.

4. E-mail: lorik@ankrommoisan.com.

END OF SECTION
SECTION 00 01 07.00
SEALS PAGE - STRUCTURAL

GENERAL

1.01 PROJECT
A. Project Name: ESD-112 - 2300 Building Re-Roof.
B. Address: 2500 NE 65th Avenue.
C. City: Vancouver, WA 98661.

1.02 THE FOLLOWING SPECIFICATION SECTIONS HAVE BEEN PREPARED BY:
A. Name: Kramer Gehlen and Associates, Inc.
   1. Address: 400 Columbia Street, Suite #240
   2. City: Vancouver, Washington
   3. Tel: 503-289-2661
   4. Project Manager: Mark Hughes
   5. E-mail: markh@kga.cc

B. Specification Table of Contents:

END OF SECTION
SECTION 00 01 13

PROJECT DIRECTORY

GENERAL

1.01 PROJECT

A. Project Name: ESD-112 - 2300 Building Re-Roof.
B. Address: 2500 NE 65th Avenue.
C. City: Vancouver, WA 98661.

1.02 OWNER

A. Owner’s Name: Educational Service District ESD 112.
   1. Address: 2500 NE 65th Avenue.
   2. City: Vancouver, WA 98661.
   3. Tel: 360-952-3482.
   4. Project Manager: Jeff Grimes.
   5. E-mail: jeffery.grimes@esd112.org.

1.03 ARCHITECT

A. Architect’s Name: Ankrom Moisan Architects, Inc.
   1. Portland Office:
      a. 38 NW Davis Street, Suite 300, Portland, Oregon 97209.
      b. Tel: 503-245-7100.
      c. Fax: 503-245-7710.
   2. Project Manager: Lori Kellow.
   3. Tel: 503) 977 5222.
   4. E-mail: lorik@ankrommoisan.com.

1.04 STRUCTURAL ENGINEER

A. Name: Kramer Gehlen and Associates, Inc.
   1. Address: 400 Columbia Street, Suite #240
   2. City: Vancouver, Washington
   3. Tel: 503-289-2661
   4. Project Manager: Mark Hughes
   5. E-mail: markh@kga.cc

END OF SECTION
SECTION 00 50 00
CONTRACTING FORMS AND SUPPLEMENTS

PART 1 GENERAL

1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT
A. The General Conditions are based on AIA A201, as amended.

1.02 FORMS
A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
B. Clarification and Modification Forms:
   1. Architect's Supplemental Instructions Form: AIA G710.

1.03 REFERENCE STANDARDS
A. AIA A201 - General Conditions of the Contract for Construction; 2017.
B. AIA G701 - Change Order; 2017.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
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)

Ankrom Moisan Architects, Inc.
38 NW Davis Street, Suite 300
Portland, OR 97209

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. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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.
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 Interpretaions
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
Bidding 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

AIA Document A201™ - 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 19:02:24 on 02/19/2018 under Order No.5117296838 which expires on 12/19/2018, and is not for resale.
Certificates for Payment
4.2.1, 4.2.5, 4.2.9, 9.3.3, 9.4, 9.5, 9.6.1, 9.6.6.1, 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
1.1.1.1, 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, 9.31.1, 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, 14.2.2, 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
1.1.1.1, 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 Joiner
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, 7.3.7, 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

AIA Document A201™ – 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1978, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 18:02:24 on 02/19/2018 under Order No.5117260838 which expires on 12/13/2018, and is not for resale.

User Notes:
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, 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, 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, 15.1.1, 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, 4.1.1.1, 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, 3.9, 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

AIA Document A201™ – 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 19:02:24 on 02/19/2018 under Order No.511726838 which expires on 12/13/2018, and is not for resale.

User Notes:
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, 8.8.2, 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
2. 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, 9.6.1, 9.10.2, 10.3.3, 11.3
Information and Services Required of the Owner
2.1.2, 2.2.1, 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, 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, 3.6.7, 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, 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, 2.2.5, 2.3.2, 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

1. 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, 3.3.4, 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
   13.1.4, 13.2.1
   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, 4.2.5, 4.2.5, 5.2.4, 5.4.2, 6.1.3, 7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.2, 9.5.1, 9.6.3, 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 Ownership 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

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
PROTECTION OF PERSONS AND PROPERTY
10
Regulations and Laws
1.5, 23.2, 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 Samples at the Site, Documents and Schedule of Values
3.11
10.2.5, 11.2
Proposal Requirements
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 Samples at the Site, Documents and Schedule of Values
3.11
10.2.5, 11.2
Proposal Requirements
1.1
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, 5.2.1, 5.2.3, 7.3.4, 9.2, 9.3, 9.8, 9.9.1, 9.10, 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

AIA Document A201™ – 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 19:02:24 on 02/19/2018 under Order No.5117260838 which expires on 12/13/2018, and is not for resale.

User Notes: (1850697537)
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, 8.3, 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, 8.5.1, 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, 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.

§1.2.1.2 In event of a conflict or discrepancy among the Contract Documents, interpretations will be based on the following priorities:
   a. Agreement.
   b. Addenda, with those of later date having precedence over those of earlier date.
   c. Supplementary Conditions.
   d. General Conditions of the Contracts.
   e. Schedules.
   f. Drawings and Specifications:
      1) In the case of inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect’s interpretation.
      2) Large Scale Drawings.
      3) Small Scale Drawings.
   g. Dimension numbers written on Drawings prevail and take precedence over Dimensions scaled from Drawings.

§ 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.

§ 1.5.3 The Owner, through its Architect, may from time to time make certain base documents available in conventional or electronic media form to the Contractor and its subcontractors and consultants for use in preparing shop drawings and submittals or in providing professional design services or certifications required under the Contract Documents. Base documents shall be issued for the recipients’ convenience only. Such base documents are not
Contract Documents, are not intended for use in construction, and may be used only at the users’ risk subject to the Architect’s reasonable restrictions and disclaimers.

§ 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. Notices may also be served by telecopy or facsimile transmission, so long as the telecopy or facsimile transmission device generates an automatic confirmation of delivery, and shall be effective on receipt.

§ 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 may 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 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 payments 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 by (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 reasonably necessary for 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. 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 issued 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 Owner or
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 To the extent 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 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 7 calendar days after first observance of the conditions. No adjustment in the Contract Time for Contract Sum shall be submitted or allowed, however, in connection with concealed or unknown conditions which do not differ materially from those conditions disclosed or which reasonably should have been disclosed by the Contractor’s prior inspections, tests, reviews and preconstruction services for the Project.

§ 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 provide the services of a competent on-site representative, from the commencement of construction to final completion and acceptance of the Work. The Contractor’s on-site representative shall represent Contractor at the Work and all directions, instructions, or notices to the on-site representative given by the Owner or Architect shall be as binding as given to the Contractor. The Contractor’s on-site representative shall be in charge of the Work at all times and shall have authority to furnish estimates and to approve minor changes in the Work. The Contractor shall not remove or replace its on-site representative without prior approval of the Owner.

§ 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 Owner or 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 Owner or 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 construction schedule shall be in an appropriately
detailed precedence-style critical path method (CPM) type format which shall provide a graphic representation of activities and events that will occur during performance of the Work 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 Contractor shall perform the Work in accordance with the schedule as well as within the dates specified in this Agreement. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. Periodically, as required by the Owner or the Architect, the Contractor shall report on the status of the Work on duplicate marked copies of the current schedule. The Contractor shall indicate in the status report any Work that is not proceeding according to the current schedule and shall provide a written plan of action to bring the Work into compliance with the schedule or to modify the schedule. Any modifications to the Contractor’s schedule notwithstanding, the Contractor shall remain responsible to complete the Work within the time specified in this Agreement.

§ 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 in writing 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.

(Paragraphs deleted)

§ 3.12.10 If professional design services or certification by a design professional related to systems, materials or equipment are required of the Contractor by the Contract Documents, the Contractor shall cause such services or certifications to be provided by properly licensed and insured design professionals whose signatures and seals shall appear on all drawings, calculations, specifications, certifications, shop drawings and other submittals prepared by such professionals. Each design professional providing such services shall carry professional errors and omissions insurance in an amount no less than $1,000,000 unless lesser limits are allowed by Owner. Contractor shall be obligated to confirm that such coverage is maintained. Shop drawings and other submittals related to the Work or certified by such professionals, if prepared by others, shall bear such professionals’ written approvals when submitted. The Owner and Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed by such design professionals consistent with the standards and criteria required under 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 notice to the Contractor.

§ 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


User Notes:
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 may, on behalf of the Owner, reject Work that does not conform to the Contract Documents. The Architect may, on behalf of the Owner, require inspection or testing of the Work in accordance with subparagraphs 13.5.2 and 13.5.3, whether or not such 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 take appropriate action upon the Contractor’s submittals such as Shop Drawings, Product Data and Samples. The Architect’s action shall be taken with such reasonable promptness to avoid delay in the Work in the activities of the Owner, Contractor or separate Contractors while allowing sufficient time in the Architect’s professional judgment to permit adequate review. Review of such submittals is conducted solely for their benefit and protection of the Owner and Contractor may not rely upon any such review as an acknowledgement or certification that the submittal is accurate, complete, or proposes work in compliance with all aspects of the Contract Documents or applicable law. The Architect’s review of the Contractor’s submittals may not relieve the Contractor of the obligations under paragraphs 3.3, 3.5 and 3.12. The Architect’s review and Owner’s acceptance shall not constitute approval of safety precautions or any construction means, methods, techniques, sequences or procedures. Acceptance 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.

§ 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 provide an initial decisions on 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 
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 
have 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

Init.
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. 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 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.

(Paragraph deleted)

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.

§ 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 and Owner 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 that 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 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.

§ 7.2.2 Agreement on any Change Order will constitute a final settlement of all matters relating to changes in the Work which are the subject of the Change order, including, but not limited to, all direct and indirect costs associated with such changes and any and all adjustments to the Contract Sum and the construction schedule.

§ 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 § 7.3.7 If the Owner and the Contractor are unable to agree upon change order terms, or if in the opinion of the Architect the Work must proceed before an agreement can be negotiated, the Architect will order the Contractor to proceed with the changes, and the Contractor shall comply. In such an event, an adjustment shall be initially determined by the Architect 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,

(Paragraphs deleted)
a reasonable allowance for overhead and profit to be determined otherwise in accordance with the Contract Documents. In no event shall the Contractor proceed with changes in the Work without a written order from the Owner to so proceed. The Owner will be under no obligation to pay for unauthorized extra, additional, or changed Work performed by the Contractor without a written Change Order or other written order to proceed executed by the Owner.

§ 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 Owner determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Owner may determine. No such delay shall be recognized unless it alone increases the overall critical path duration of the schedule in effect at the time of delay.

(Paragraph deleted)
§ 8.3.2 No schedule extension shall be allowed for delay commencing more than seven (7) calendar days before notice of claim therefore is made in writing to the Owner. In case of a continuing delay, only one claim is necessary.

§ 8.3.3 No claim for delay shall be allowed the Contractor on account of the Architect’s or Owner’s failure to return drawings and shop drawings to the Contractor until ten (10) working days after Architect’s receipt of a demand for such drawings, and not then, unless such claim is just and allowable as provided above. Disapproval of incomplete or defective submittals shall not be a claim for delay.

§ 8.3.4 The Owner may accelerate the schedule from time to time upon written direction to the Contractor to so accelerate. If the forces of the Contractor or any of its subcontractors are required to work overtime as a result of such acceleration, the Owner will reimburse the Contractor for the premium portion of overtime wages paid plus applicable federal and state payroll taxes and other actual payroll costs attributable to the overtime premium. Reimbursement for such acceleration shall not include any markup for overhead or profit of the Contractor or its subcontractors on the premium portion of overtime wages. No reimbursement will be allowed for overtime work which the Contractor is required to perform due to its own failure to otherwise meet the schedule or due to any other fault of the Contractor.

§ 8.3.5 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 Owner and 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 Owner and 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 Owner and Architect and supported by such data to substantiate its accuracy as the Owner or Architect may require, and unless objected to by the Owner or 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 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.

AIA Document A201™ – 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 19:02:24 on 02/19/2018 under Order No.5117206838 which expires on 12/13/2018, and is not for resale.

User Notes:
§ 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 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 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 The Owner may condition any payment otherwise due to Contractor upon the Contractor’s prior submission of unconditional lien waivers from subcontractors and suppliers covering any work for which Contractor has received payment from the Owner.

§ 9.6.9 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 startup, 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

Init. 
/

AIA Document A201™ – 2017. Copyright © 1911, 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1966, 1970, 1976, 1987, 1997, 2007 and 2017 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This document was produced by AIA software at 19:02:24 on 02/19/2018 under Order No.5117260838 which expires on 12/13/2018, and is not for resale.

User Notes:
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, less 200% of the value of the Work remaining to complete. If 200% of the remaining balance for Work not fully completed or corrected is less than retainerage 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. 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 reasonably incurred thereby.

§ 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 If the Contractor’s required insurance is not described in the Agreement or elsewhere in the Contract Documents, as provided in § 11.1.1, then the Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor’s operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

1. Claims under workers’ compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
2. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor’s employees;
3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor’s employees;
4. Claims for damages incurred by usual personal injury liability coverage;
5. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
6. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
7. Claims for bodily injury or property damage arising out of completed operations; and
8. Claims involving contractual liability insurance applicable to the Contractor’s obligations under Section 3.18.

§ 11.1.2.1 The insurance required by subparagraph 11.1.2 shall be written for not less than the limits of liability provided below, unless otherwise specified in the Contract Documents, or required by law, whichever coverage is greatest.

1. Employers’ liability -- $________________
2. Comprehensive commercial general liability insurance including premises/operations, personal injury liability, blanket contractual liability, broad form property damage liability, products liability, completed operations liability, independent contractors and underground, explosion, and collapse hazards -- $________________ each occurrence, bodily injury and property damage combined,
3. Automobile liability on all owned, non-owned, and hired automobiles -- $________________ each occurrence, bodily injury and property damage combined.
4. Umbrella/ excess liability -- $________________ each occurrence, bodily injury and property damage combined.
§ 11.1.2.2 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.2.3 The Contractor shall cause the commercial liability coverage required by the Contract Documents 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 during the Contractor's completed operations.

§ 11.1.2.4 Deductible (self-insured) amounts under all required liability insurance policies shall be subject to approval by Owner and in the event of a claim against such policies, the deductible amount shall be paid by Contractor as part of the Cost of the Work.

§ 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. Except as provided in § 11.5.2, Owner shall not be liable for the result of any such settlement with insurers as long as such settlement is reached in good faith and Owner has conferred with Contractor on such settlement as provided in §11.5.2.

§ 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 to the Architect 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;

§ 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. The Contractor shall not be entitled to recover consequential damages as a result of any of the events set forth in paragraph 14.1.1, which would be grounds for the Contractor to terminate. The total amount to which the contractor is entitled upon termination pursuant to paragraph 14.1.1 shall not exceed the Contract Sum, adjusted for change orders, less prior progress payments received.

§ 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. materially 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. disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
4. otherwise is guilty of material 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:

- Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- Accept assignment of subcontracts pursuant to Section 5.4; and
- 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.

If the Contractor claims that any instruction issued on behalf of the Owner after the effective date of this Agreement, by drawings or otherwise, involve extra costs under the Contract, Contractor shall not be entitled to reimbursement for such extra costs unless the Contractor so notifies the Architect and Owner in writing before proceeding with the affected Work and within seven (7) calendar days after receipt of such instructions. Claims and demands for any other cause, whatsoever, by the Contractor against the Owner must be served in writing upon the Architect and Owner within fourteen (14) calendar days from the occurrence of the cause giving rise to the claim. Timely compliance with the written notice requirements of this Agreement are a condition precedent to the Contractor’s right to reimbursement of this Agreement are a condition precedent to the Contractor’s right to reimbursement or payment on account of any claim or demand and failure to provide such notice shall constitute Contractor’s waiver of such claim or demand.

§ 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) to the party 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 and 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 The Contractor and the Owner agree that any dispute that may arise under this Agreement will be submitted to a mediator agreed to by both parties as soon as such dispute arises, but in any event prior to commencement of arbitration or litigation. Such mediation shall occur at that place where the Project is located and the mediation fee and expenses shall be shared equally by the parties who agree to exercise their best efforts in good faith to resolve all disputes in mediation.

(Paragraphs deleted)

§ 15.4 Arbitration and Litigation
§ 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 ("AAA") in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement, except that the dispute will be heard by a single arbitrator and the parties shall be entitled to discovery under the Federal Rules of Civil Procedure (rather than under the AAA rules for discovery) as administered by the Arbitrator. 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 01 10 00
SUMMARY

PART 1  GENERAL

1.01  PROJECT
A.  Project Name: ESD-112 - 2300 Building Re-Roof
   1.  Address: 2500 NE 65th Avenue
   2.  City: Vancouver, WA 98661
B.  Owner’s Name: Education Service District 112.
C.  Architect’s Name: Ankrom Moisan Architects, Inc.
   1.  Portland Office:
       a.  38 NW Davis, Suite 300, Portland, Oregon 97209.
       b.  Tel: 503-245-7100.
       c.  Fax: 503-245-7710.
D.  Contract Documents, dated February 10, 2020 were prepared for Project by Ankrom Moisan Architects, Inc.

1.02  DESCRIPTION OF ALTERATIONS WORK
A.  Scope of alterations work is indicated on drawings.

1.03  OWNER OCCUPANCY
A.  Owner intends to occupy the Project through duration of construction.
B.  Cooperate with Owner to minimize conflict and to facilitate Owner’s operations.
C.  Schedule the Work to accommodate Owner occupancy.

1.04  CONTRACTOR USE OF SITE AND PREMISES
A.  Construction Operations: Limited to areas noted on Drawings.
   1.  During construction period Contractor to have full use of premises for construction operations, including use of site.
   2.  Contractor’s use of premises is limited only for Owner’s right to perform work or to retain other contractors on portions of Project.
   3.  Keep driveways and entrances serving premises clear and available to Owner, Owner’s employees, and emergency vehicles at all times.
B.  Provide access to and from site as required by law and by Owner:
   1.  Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
   2.  Do not obstruct roadways, sidewalks, or other public ways without permit.
C.  Existing Building: Maintain existing building in a weathertight condition throughout construction period.
   1.  Repair damage caused by construction operations.
2. Take all precautions necessary to protect building and its occupants during construction period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Procedures for preparation and submittal of applications for progress payments.
B. Documentation of changes in Contract Sum and Contract Time.
C. Change procedures.
D. Correlation of Contractor submittals based on changes.

1.02 DEFINITIONS
A. Architect's Supplemental Instructions (ASI):
   1. Architect's written order of instruction to Contractor, signed by Architect, which authorizes minor
      changes in Work that do not change Contract Sum or Contract Time.
B. Proposal Request (PR):
   1. Initiated by Architect: Written request by Architect to Contractor to quote change to Contract Sum
      and/or Contract Time for proposed change to Contract Documents.
   2. Initiated by Contractor: Written request by Contractor to Architect proposing change to Contract
      Documents accompanied with quotation for change to Contract Sum and/or Contract Time.
C. Construction Change Directive (CCD):
   1. Written order prepared by Architect, signed by Owner and Architect, directing Contractor to proceed
      with change to Contract Documents which affect Contract Sum and/or Contract Time, for subsequent
      inclusion in a Change Order after change to Contract Sum and/or Contract Time has been determined.
D. Change Order (CO):
   1. Prepared by Architect and signed by Owner, Contractor, and Architect stating their agreement to a
      change to Contract Documents and adjustment to Contract Sum and/or Contract Time.

1.03 SCHEDULE OF VALUES
A. Electronic media printout including equivalent information will be considered in lieu of standard form
   specified; submit draft to Architect for approval.
B. Forms filled out by hand will not be accepted.
C. Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet.
   Contractor's standard form or electronic media printout will be considered.
D. Correlate line items in Schedule of Values with other required administrative schedules and forms, including:

Project Number 195390
1. Contractor's Construction Schedule.
2. Application for Payment forms, including Continuation Sheets.
3. List of Subcontractors, principle suppliers, and fabricators.
4. Schedule of allowances.
5. Schedule of alternates.

E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization.
   1. Identification: Include following Project identification on Schedule of Values:
      a. Project name and address.
      b. Name of Architect.
      c. Project number.
      d. Contractor's name and address.
      e. Date of submittal.
   2. Arrange Schedule of Values in tabular form with separate columns to indicate following for each item listed:
      a. Related Specification Section or Division.
      b. Description of Work.
      c. Name of subcontractor.
      d. Name of manufacturer or fabricator.
      e. Name of supplier.
      f. Change Orders (numbers) that affect value.
      g. Dollar value; Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
   3. Provide a breakdown of Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports.
   4. Round amounts to nearest whole dollar; total to equal Contract Sum.
   5. Provide a separate line item for each part of Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
   6. Update and resubmit Schedule of Values prior to next Applications for Payment when Change Orders or Construction Change Directives result in a change in Contract Sum.

F. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.

G. Revise schedule to list approved Change Orders, with each Application For Payment.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.

B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.

C. Forms filled out by hand will not be accepted.

D. Present required information in typewritten form.
E. Form: AIA G702 Application and Certificate for Payment and AIA G703 - Continuation Sheet including continuation sheets when required.

F. Initial Application for Payment:
1. Administrative actions and submittals that must precede or coincide with this application include following:
   a. List of subcontractors.
   b. List of principal suppliers and fabricators.
   c. Schedule of Values.
   d. Contractor's Construction Schedule.
   e. List of Contractor's staff assignments.
   f. List of Contractor's principal consultants.
   g. Copies of building permits.
   h. Initial progress report.
   i. Report of preconstruction meeting.
   j. Certificates of insurance and insurance policies.
   k. Performance and payment bonds.
   l. Data needed to acquire Owner's insurance.

G. Application for Payment at Substantial Completion: Following issuance of Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of Work.
2. Administrative actions and submittals that must precede or coincide with this application include following:
   a. Occupancy permits and similar approvals.
   b. Warranties (guarantees) and maintenance agreements.
   c. Test/adjust/balance records.
   d. Maintenance instructions.
   e. Final cleaning.
   f. Application for reduction of retainage and consent of surety.
   g. Advice on shifting insurance coverage.
   h. List of incomplete Work recognized as exceptions to Architect's Certificate of Substantial Completion.

H. Final Payment Application:
1. Administrative actions and submittals that must precede or coincide with this application include following:
   a. Completion of Project closeout requirements.
   b. Completion of items specified for completion after Substantial Completion.
   c. Ensure that unsettled claims will be settled.
   d. Ensure that incomplete Work is not accepted and will be completed without undue delay.
   e. Transmittal of required Project construction records to Owner.
   f. Proof that taxes, fees, and similar obligations were paid.
   g. Removal of temporary facilities and services.
   h. Removal of surplus materials, rubbish, and similar elements.
i. Change of door locks to Owner's access.

I. Execute certification by signature of authorized officer.
   1. Complete every item of form. Include notarization and execution by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
      a. Match entries with data on Schedules of Values.
      b. Include amounts of Change Orders and Construction Change Directives issued prior to last day of construction period covered by application.

J. Submit one electronic and one hard-copies of each Application for Payment.

K. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 MODIFICATION PROCEDURES

A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to Contract Documents.

B. For minor changes not involving an adjustment to the Contract Price or Contract Time, Architect will issue instructions directly to Contractor.

C. Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing Architect's supplemental instructions (ASI) on AIA Form G710 or other similar form designated by Architect.

D. Architect's Supplement Instructions (ASI).
   1. Architect's Supplemental Instructions may include supplementary or revised Drawings and/or Specifications to describe minor changes.

E. Construction Change Directive (CCD): Architect may issue a directive, on AIA Form G714 Construction Change Directive or other similar form designated by Architect, signed by Architect, instructing Owner to proceed with a change in the Work, for subsequent inclusion in a Change Order.
   1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
   2. Construction Change Directive may include supplementary or revised Drawings and/or Specifications to describe change to the Contract Documents
   3. Promptly execute the change.
   4. Both Owner and Architect will sign and date a Construction Change Directive which directs the Contractor to proceed with change to the Contract Documents prior to determination of cost and/or time.
   5. Contractor shall submit to Architect itemized change to Contract Sum and/or Contract Time within 10 working days when possible, and no more than 30 calendar days, except for the following conditions:
a. Unit prices have been agreed upon and quantities cannot be determined until work described in the CCD has been completed.
b. Owner has agreed that Contract Sum and/or Contract Time of can be determined at completion of work described in the CCD.

6. When Owner, Architect, and Contractor concur on change to Contract Sum and/or Contract Time, as described in the General Conditions for “Construction Change Directives,” the change to Contract Sum and/or Contract Time will be included in a Change Order.

7. Construction Change Directive is issued in lieu of a Proposal Request when time is of the essence and change to Contract Sum and/or Contract Time cannot be determined prior to start of the work.

F. Proposal Request (PR): Architect may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 10 days.

1. Proposal Request is a request for information only, and is not an instruction or authorization to execute the change, or an order to stop Work in progress.

2. Proposal Request may include supplementary or revised Drawings and/or Specifications to describe a proposed change to Contract Documents.

G. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 60 00.

1. Proposal Request is for a change in the Work accompanied by a detailed quotation of impact on Contract Sum and/or Contract Time.

2. Proposal Request may include revised Drawings and/or Specifications to describe a proposed change to Contract Documents.

3. Proposal Request is a request for information only, and does not authorize the Contractor to execute the change or stop Work in progress without the Architect’s and Owner’s authorization.

4. Contractor initiated Proposal Requests may take the form of a “Claim” where Contractor finds it necessary for proper execution of the Work, to propose a change in the Work that is not shown or indicated in Contract Documents, and may affect Contract Sum and/or Contract Time, which for which no Proposal Request or Construction Change Directive has been issued by the Architect.

a. Contractor’s determination that Architect’s response to an RFI which affects Contract Sum and/or Contract Time may be addressed by Contractor in a Proposal Request.

5. Architect shall respond to Contractor initiated proposals within 10 working days following receipt of Proposal Request.

H. Change Orders (CO):
1. Architect will prepare each Change Order utilizing AIA Document G701, or other similar form acceptable to Owner.

2. Stipulated Sum Change Order: Based on Proposal Request or Notice of Change and Contractor's price quotation or Contractor's request for a Change Order as approved by Architect.

I. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
   1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
   2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
   3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
   4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
   5. Proposal Requests approved for change to Contract Documents by Owner and Architect that have not been converted to a Construction Change Directive.
   6. Construction Change Directive where Owner, Architect, and Contractor have agreed to change in Project Contract Sum and/or Contract Time.
   7. Changes to Project Contract Sum and/or Contract Time that have not been documented by Proposal Request or Construction Change Directive, but have been agreed upon by Owner, Architect, and Contractor.

J. Substantiation of Costs: Provide full information required for evaluation.
   1. On request, provide the following data:
      a. Quantities of products, labor, and equipment.
      b. Taxes, insurance, and bonds.
      c. Overhead and profit.
      d. Justification for any change in Contract Time.
      e. Credit for deletions from Contract, similarly documented.
   2. Support each claim for additional costs with additional information:
      a. Origin and date of claim.
      b. Dates and times work was performed, and by whom.
      c. Time records and wage rates paid.
      d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
      e. Products, with quantities used and unit cost, including purchase source.
      f. Taxes, Insurance, and Bonds.
      g. Credit for deleted work where applicable with same documentation as required for cost increases for additional work.
      h. Overhead and profit, determined after credits have been deducted from additions.
      i. Justification for change in Contract Time.
   3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
4. Claims for Work not authorized through Proposal Requests or Construction Change Directives:
   a. Provide supporting documentation for each claim for additional cost as indicated above for cost and time quotations with the following additional information:
   b. Name of Owner's authorized agent who ordered work, and date of Order.
   c. Dates and hours work performed, and by whom.
   d. Timecard records, including summary of hours worked, and hourly rates paid.
   e. Receipts and invoices for products used including quantities and unit costs.
   f. Receipts and invoices for equipment utilized, including dates and time of use.
   g. Provide the same documentation indicated above for subcontracts same as required for Contractor's own forces.

K. Unit Price Change Order:
   1. For pre-determined unit prices and quantities, Change Order will be executed on a fixed unit price basis.
   2. For unit costs or quantities of units of work which are not pre-determined, execute work under a Construction Change Directive.
   3. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.

L. Time and Material Change Order:
   1. Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of Contract.
   3. Maintain detailed record so work done on Time and Material basis.
   4. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in work.

M. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

N. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

O. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

P. Promptly enter changes in Project Record Documents.

Q. Document requests for Product substitutions according to requirements of Section 01 60 00.
1.06 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
   1. All closeout procedures specified in Section 01 70 00.

1.07 CORRELATING CHANGE ORDERS WITH OTHER REQUIREMENTS

A. Revise Schedule of Values and Applications for Payment to record each Change Order as separate item of work with adjustment to Contract Sum and Contract Time as described herein.

B. Revise Construction Schedule to reflect each change in Contract Time.

C. Revise Subschedules to show changes for other items of work affected by modifications to Contract Documents.

D. Record modifications in Record Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 01 22 00
UNIT PRICES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. List of unit prices, for use in preparing Bids.
   B. Measurement and payment criteria applicable to Work performed under a unit price payment method.

1.02 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Submit documented quantities, unit pricing and total cost in form of Change Orders.

1.03 COSTS INCLUDED
   A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.04 UNIT QUANTITIES SPECIFIED
   A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

1.05 MEASUREMENT OF QUANTITIES
   A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
   B. Take all measurements and compute quantities. Measurements and quantities will be verified by Owner.
   C. Assist by providing necessary equipment, workers, and survey personnel as required.
   D. Measurement by Area: Measured by square dimension using mean length and width or radius.

1.06 PAYMENT
   A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Architect, multiplied by the unit price.

1.07 DEFECT ASSESSMENT
   A. Replace Work, or portions of the Work, not complying with specified requirements.
   B. If, in the opinion of Owner, it is not practical to remove and replace the Work, Owner will direct one of the following remedies:
1. The defective Work may remain, but the unit price will be adjusted to a new unit price at the discretion of Owner.

2. The defective Work will be partially repaired to the instructions of the Owner, and the unit price will be adjusted to a new unit price at the discretion of Owner.

C. The authority of Owner to assess the defect and identify payment adjustment is final.

1.08 SCHEDULE OF UNIT PRICES

A. Item 1: Unit Price to remove and replace existing roof sheathing deemed unsuitable due to rot or water damage by engineer of record.; Section 06 10 00 Rough Carpentry.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

3.01 PREPARATION

A. Coordinate work and document quantity of units.

END OF SECTION
SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. General administrative requirements.
B. Electronic document submittal service.
C. Preconstruction meeting.
D. Contract documents precedence.
E. Pre-Installation Meeting.
F. Progress meetings.
G. Construction progress schedule.
H. Progress photographs.
I. Coordination drawings.
J. Submittals for review, information, and project closeout.
K. Number of copies of submittals.
L. Requests for Interpretation (RFI) procedures.
M. Submittal procedures.
N. Layout of work.
O. Field engineering.

1.02 DEFINITIONS
A. Coordination Drawings:
   1. Show relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in space provided or to function as intended.
B. Product Data:
   1. Printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
C. Samples:
   1. Partial sections of manufactured or fabricated components, cuts or containers of material, color range sets, and swatches showing color, texture, and pattern.
D. Field samples:
   1. Full-sized physical examples erected on-site to illustrate finishes, coatings, or finish materials.
2. Samples used to establish standard by which Work will be judged.

E. Mockups:
1. Full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.
2. Approved mockups will be used to establish standard by which Work will be judged and maybe allowed to remain as part of the permanent Work.

1.03 CONTRACT DOCUMENTS PRECEDENCE

A. In event of conflict or discrepancy among the Contract Documents, interpretations will be based on the following order of priorities:
   1. Agreement
   2. Addenda, with those of later date having precedence over those of earlier date.
   3. Supplementary Conditions.
   4. General Conditions of the Contracts.
   5. Schedules.
      a. In the case of inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect’s interpretation.
      b. Large Scale Drawings.
      c. Small Scale Drawings.
   7. Dimension numbers written on Drawings prevail and take precedence over Dimensions scaled from Drawings.

1.04 PROJECT COORDINATOR

A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of The Work.
   1. Schedule construction operations in sequence required to obtain best results where installation of one part of Work depends on installation of other components.
   2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
   3. Coordinate storage or staging areas for all trades.

B. Administrative Procedures:
   1. Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of Work.
   2. Administrative activities include, but are not limited to:
      a. Preparation of Schedules.
      b. Installation of temporary facilities.
      c. Delivery and processing of submittals.
      d. Progress meetings.
      e. Project closeout activities.
C. **Staff Names:** Within 15 days of commencement of construction operations, submit a list of Contractor's principal staff assignments, including superintendent and other personnel involved in daily Project activities.
   1. Identify individuals, their duties and responsibilities.
   2. List personnel addresses and telephone numbers.

D. **Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.**

E. **Conservation:** Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

3.01 **ELECTRONIC DOCUMENT SUBMITTAL SERVICE**

A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF, MS Word, or MS Excel) format, as appropriate to the document, and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email.

   1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Interpretation (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
   2. Contractor and Architect are required to use this service.
   3. It is Contractor's responsibility to submit documents in allowable format.
   4. Subcontractors, suppliers, and Architect's consultants will be permitted to use the service at no extra charge.
   5. Users of the service need an email address, internet access, and PDF review software that includes ability to mark up and apply electronic stamps (such as Adobe Acrobat, www.adobe.com, or Bluebeam PDF Revu, www.bluebeam.com), unless such software capability is provided by the service provider.
   6. Paper document transmittals will not be reviewed; emailed electronic documents will not be reviewed.
   7. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.

B. **Submittal Service:** The selected service is:
   1. Newforma Info Exchange:
      a. Project access: Invitation to be provided by Architect.

C. **Training:** Web-based video tutorials are available on the site.
D. Project Closeout: Architect will determine when to terminate the service for the project and is responsible for obtaining archive copies of files for Owner.

3.02 PRECONSTRUCTION MEETING

A. Schedule a meeting after notice to proceed.

B. Schedule meeting at a time convenient to Owner and Architect, but not later than 15 days after Notice of Award.
   1. Hold conference at Project site or other convenient location.

C. Attendance Required:
   1. Owner.
   3. Contractor.
   4. Superintendent.
   5. Subcontractors.
   6. Manufacturer’s Technical Representative.

D. Agenda:
   1. Execution of Owner-Contractor Agreement.
   2. Submission of executed bonds and insurance certificates.
   4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
   5. Designation of personnel representing the parties to Contract and Architect.
      a. Emergency off-hour contacts.
   7. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
   8. Scheduling.
      a. Critical work sequencing.
   9. Purpose of Request for Interpretation (RFI):
      a. Determine information not included in Contract Documents.
      b. RFI is not intended to address:
         1) Design changes affecting time and/or price.
         2) Frivolous items.
         3) Items not related to Scope.

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

3.03 PRE-INSTALLATION MEETING

A. Conduct Pre-Installation Conference before each activity that requires coordination with other construction activities. Specification Sections requiring Pre-Installation Conferences include:
1. 06 16 00 - Sheathing
2. 07 54 13 - Thermoplastic Membrane Roofing (TPO)

B. Attendance Required:
1. Owner.
3. Contractor.
4. Building envelope consultant
5. Installer foreman
6. Manufacturer's technical representative.
7. Code enforcement personnel, if required by local codes (example: Section 07 84 00, Firestopping.

C. Notifications:
1. Notify attendees of scheduled Conference a minimum of 7 calendar days in advance of the conference.

D. Agenda:
1. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
3. Procedures and processing of field decisions, submittals, and substitutions.
4. Scheduling.
5. Scheduling and preparation for activities of other trades.
6. Review progress of time schedules, manufacturer's preparation and installation recommendations, safety requirements, weather limitations, substrate acceptability, compatibility problems, and inspection and testing requirements.
7. Review progress of other construction activities and preparations for particular activity under consideration, including requirements for following:
   b. Shop Drawings, Product Data, and Quality Control Samples.
   c. Details
   d. Mockups.
   e. Possible conflicts or compatibility problems.
   f. Weather limitations.
   g. Manufacturer's preparation and installation recommendations.
   h. Warranty requirements.
   i. Substrate acceptability.
   j. Governing regulations.
   k. Inspecting and testing requirements.
   l. Protection.
8. Record significant discussions, agreements, and disagreements of each conference. It is recommended that this meeting be held either preceding or following a Progress Meeting.
   a. Number and record meetings sequentially.
b. Distribute meeting record to concerned parties, including Architect and Owner, within 72 hours after meeting.

E. Do not proceed with installation if meeting cannot be successfully concluded.
   1. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene conference at earliest feasible date.

### 3.04 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required:
   1. Contractor.
   2. Owner.
   3. Architect, as requested.
   4. Contractor's superintendent.
   5. Major subcontractors.

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

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

### 3.05 CONSTRUCTION PROGRESS SCHEDULE

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

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

C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.
2. Include Product Submittal Review Schedule, provide date of submittal, length of design team review and resubmittal time.
3. Submittals submitted prior to an approved Product Submittal Schedule will be returned without action.

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

E. Provide updated schedule at each OAC meeting.

3.06 PROGRESS PHOTOGRAPHS

A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.

B. Photography Type: Digital; electronic files.

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

D. Views:
   1. Provide non-aerial photographs from four cardinal views at each specified time, until date of Substantial Completion.
   2. Consult with Architect for instructions on views required.
   3. Provide factual presentation.
   4. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

E. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.
   1. Delivery Medium: Via email.
   2. File Naming: Include project identification, date and time of view, and view identification.
   3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
   4. Hard Copy: Printed hardcopy (grayscale) of PDF file and point of view sketch.

3.07 COORDINATION DRAWINGS

A. Prepare coordination drawings where coordination is needed for installation of products and materials fabricated by separate entities.
   1. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

B. Review drawings prior to submission to Architect.
3.08 REQUESTS FOR INTERPRETATION (RFI)

A. Definition:
1. A request for interpretation (RFI) will not impact time and/or cost. If the Contractor believes the response will impact time and/or cost, see 3.10.G.
2. A request for interpretation (RFI) is seeking one of the following:
   a. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.

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

C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
1. Prepare a separate RFI for each specific item.
   a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
   b. Provide a proposed solution.
   c. Do not forward requests which solely require internal coordination between subcontractors.
2. Prepare using software provided by the Electronic Document Submittal Service.
3. Combine RFI and its attachments into a single electronic file. PDF format is required.

D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Include in each request Contractor’s signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
   a. Approval of submittals (use procedures specified elsewhere in this section).
   b. Approval of substitutions (see Section - 01 60 00 - Product Requirements).
   d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
   e. Documenting field conversations.
3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required...
to clarify the question. They will be returned without a response, with an explanatory notation.

a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.

E. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
   1. Number RFIs sequentially from "001".
   2. Record each RFI in a log, identifying each by RFI-#, subject, date submitted, date of response, and disposition. Update and distribute log at project meetings.
   3. Indicate current status of every RFI. Update log promptly and on a regular basis.
   4. Note dates of when each request is made, and when a response is received.
   5. Highlight items requiring priority or expedited response.

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

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

3.09 SUBMITTAL SCHEDULE

A. Submit to Architect for review and approval, a schedule for submittals in tabular format.
   1. Coordinate with Contractor’s construction schedule and schedule of values.
   2. Adjust submittal schedule to correspond with adjustment made to the construction schedule.
      a. Schedule submittals so as to allow for a reasonable amount of time for Architect to process and review.
   3. Format schedule to allow tracking of status of submittals throughout duration of construction.
4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.

5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
   a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.10 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system.

B. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required or proposed for Work, clearly mark copies to indicate applicable information.

C. Include following information:
   1. Manufacturer’s printed recommendations.
   2. Compliance with trade association standards.
   3. Compliance with recognized testing agency standards.
   4. Performance characteristics and capacities.
   5. Notation of dimensions verified by field measurement.
   6. Required clearances, wiring and piping diagrams, and controls.
   7. Manufacturer’s standard schematic drawings and diagrams, modified as required to suit Project requirements.
   8. Notation of coordination requirements.

D. Colors and Patterns:
   1. Except where specific color and pattern is indicated in Contract Documents, and whenever a choice of color or pattern is available in specified products, submit 2 color and pattern charts to Architect for selection.

E. Submit following for each required submittal:
   1. 2 copies for Architect.
   2. Number of copies as required for Maintenance manuals.
   3. Number of copies as required by Contractor for distribution.

F. Architect will retain 2 copies and return remainder, marked with action taken and corrections or modifications required, to Contractor for distribution.
   1. Contractor to retain number of copies required for maintenance manuals.
   2. Do not permit use of unmarked copies of Product Data in connection with construction.

3.11 SAMPLES

A. Submit Samples for review of size, kind, color, pattern, and texture, and to illustrate functional and aesthetic characteristics of Product, clearly mark samples to indicate applicable information.
B. Where variation in color, pattern, or texture, or other characteristic is inherent in material or product represented, submit at least 3 multiple units that show approximate limits of variations, or number of units indicated in individual specification Sections.

C. Field Samples: Full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish Project standard.

3.12 QUALITY ASSURANCE SUBMITTALS

A. Submit quality control submittals, including:
   1. Design data
   2. Certifications
   3. Manufacturer’s instructions
   4. Manufacturer’s field reports
   5. Other quality control submittals required under individual Technical Specifications of Project Manual.

B. Certifications: Where individual Technical Specifications Sections of Project Manual require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from manufacturer certifying compliance with specified requirements.
   1. Certification to be signed by an officer of manufacturer or other individual authorized to sign documents on behalf of company.

3.13 DESIGN DRAWINGS: DELEGATED DESIGN COMPONENTS

A. Make design Drawings accurately to a scale sufficiently large to show pertinent aspects of item and its method of connection to Work.

B. Provide structural calculation stamped by structural engineer registered in state work is being performed.

3.14 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit in a single bookmarked PDF for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.

C. Samples will be reviewed for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - Closeout Submittals.
3.15 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
   1. Design data.
   2. Certificates.
   3. Test reports.
   4. Inspection reports.
   5. Manufacturer's instructions.
   6. Manufacturer's field reports.
   7. Coordination Drawings.
   8. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner.

3.16 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 78 00 - Closeout Submittals:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Other types as indicated.

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

3.17 NUMBER OF COPIES OF SUBMITTALS

A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.

B. Samples: Submit the number specified in individual specification sections; two of which will be retained by Architect.
   1. After review, produce duplicates.
   2. Retained samples will not be returned to Contractor unless specifically so stated.
   3. Additional number of samples as required by Contractor for distribution.
      a. Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of Work.

C. Copies will be returned, marked with Architect's action taken and corrections or modifications required, to Contractor for reproduction and distribution.
   1. Do not permit use of unmarked Shop Drawings in connection with construction.

3.18 SUBMITTAL PROCEDURES

A. General Requirements:
1. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
   a. Retain numbering system throughout revisions with addition of sequential letters for each revision to initial submittal.
2. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
3. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
   a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
   b. Identify deviations from Contract Documents, and Product or system limitations which may be detrimental to successful performance of completed Work.
   c. Architect will return submittals without action if Contractor has not coordinated submittal and applied signature prior to transmittal to Architect.
4. Schedule submittals to expedite the Project, and coordinate submission of related items.
   a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
   b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
5. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
6. Provide space for Contractor and Architect review stamps.
7. When revised for resubmission, identify all changes made since previous submission.
8. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
9. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
10. Submittals not requested will not be recognized or processed.

B. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
2. Do not reproduce Contract Documents to create shop drawings.
3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

C. Coordination:
1. Coordinate preparation and processing of submittals with performance of construction activities.
a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
   1) Transmit each submittal sufficiently in advance to avoid delay of related construction activities.
2. Coordinate transmittal of submittals for related elements of Work so processing will not be delayed by need to review submittals concurrently for coordination.
   a. Architect reserves right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
   b. Partial submittals may be rejected as not complying with these provisions of Contract.
3. Coordinate and ensure that no Work is performed that is involved with submittal until receiving Architect's stamped and signed approval.
4. Architect will not accept submittals received from sources other than Contractor.
5. Reference submittal to pertinent Contract Drawing sheet and detail number(s), and Contract Specification Section number.
6. Submit items pertaining to only one Specification Section in each submittal.

D. Submittal log:
   1. Submit submittal log listing all submittals and date to be submitted at first construction meeting.
   2. Submit log itemizing project submittals and project submission date one week prior to first submittal.
   3. Identify each submittal.
   4. Maintain an accurate submittal log for duration of Work, showing current status of submittals at all times.
   5. Log to be reviewed at weekly meeting.
      a. Make log available to Owner and Architect for review upon request.

3.19 SUBMITTAL REVIEW

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

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

C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.

D. Architect's and consultants' actions on items submitted for review:
   1. Authorizing purchasing, fabrication, delivery, and installation:
      a. "Approved", or language with same legal meaning.
      b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
         1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
      c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
   2. Not Authorizing fabrication, delivery, and installation:
E. Architect's and consultants' actions on items submitted for information:
   1. Items for which no action was taken:
      a. "Received" - to notify the Contractor that the submittal has been received for record only.
   2. Items for which action was taken:
      a. "Reviewed" - no further action is required from Contractor.

3.20 ARCHITECT'S ACTION

A. Except for submittals for record or information, where action and return is required, Architect will review each submittal, mark to indicated action taken, and return to Contractor.

B. Action Stamp: Architect will stamp each submittal with an action stamp, and mark stamp appropriately to indicate action taken, as follows:
   1. NO EXCEPTION TAKEN:
      a. Final Unrestricted Release: Work covered by submittal may proceed provided it complies with requirements of Contract Documents.
      b. Final payment depends on that compliance.
   2. MAKE CORRECTIONS NOTED:
      a. Final-But-Restricted Release: Work covered by submittal may proceed provided it complies with corrections on submittal and requirements of Contract Documents.
      b. Final payment depends on that compliance.
   3. REVISE AND RESUBMIT:
      a. Returned for Resubmittal: Do not proceed with Work covered by submittal, including purchasing, fabrication, delivery, or other activity.
      b. Revise or prepare a new submittal according to notations and resubmit. Repeat as necessary to obtain a mark releasing submittal.
      c. Do not use, or allow others to use, submittals marked REVISE AND RESUBMIT, at Project site or elsewhere where Work is in progress.
   4. REJECTED:
      a. Rejected from use: Work or product covered may NOT proceed or be used.
   5. SUBMIT SPECIFIED ITEM:
      a. Contractor to submit specified product.
   6. Other Action: Where a submittal is for information or record purposes or special processing or other activity, Architect will return submittal marked RECORD DOCUMENT.

C. DELEGATED DESIGN COMPONENT REVIEW:
   1. Architect will stamp submittal after it has been reviewed by contractor.
   2. Actions as specified under Action Stamp apply in addition to the following:
      a. REVIEWED FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING.
      b. REVIEWED TO DETERMINE WHETHER SYSTEMS, MATERIALS OR EQUIPMENT ARE DESIGNED IN CONFORMANCE WITH THE PERFORMANCE AND DESIGN CRITERIA AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
D. Unsolicited Submittals: Architect will return unsolicited submittals to sender without action.

3.21 LAYOUT OF WORK

A. Survey and verify conditions of project site.

B. Record existing conditions prior to construction for comparison with Contract Documents.
   1. Report conflicts to Architect prior to start of Work.
   2. Architect will provide revisions to Contract Documents or issue instructions to deal with conflicts.
   3. Be responsible for remedying conflicts which could have been prevented by timely reviews of existing conditions.
   4. Remedies, which vary from Contract Documents shall be approved by Architect's and Owner's Representatives.

3.22 FIELD ENGINEERING

A. Engineering Services:
   1. Provide field engineering services as required for construction.
   2. Locate and maintain an accurate benchmark on or near site which has been established by a Registered Surveyor.
      a. Relate subsequent elevations of finish grades and building elements directly to this benchmark.

B. Existing Control Points:
   1. Protect control points prior to starting Work, and preserve permanent reference points during construction.
   2. Make no changes or relocations of control points without prior written notice to Architect's Representative.
   3. Report to Architect's Representative when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.

C. Instrument Layout:
   1. Using site bench marks and existing elevation control points, establish lines and levels, located and laid out by survey instrumentation.
   2. Locate water supply, storm and sanitary sewer lines.
   3. Locate edge and level of paving, curbs, walks, and sloping landscape.
   4. Locate building foundations, column locations, and floor levels.
   5. Locate controlling lines and levels required for plumbing, mechanical and electrical Work within 5 feet of building perimeter.

D. Corrections:
   1. Record changes in elevations or location of Work on project record Documents.
   2. Report errors in horizontal and vertical dimensions and grades prior to starting Work.

E. Verification:
   1. Verify dimensions of new and existing Work.
a. If field measurements differ slightly from Drawings, modify to accommodate. If field measurements differ significantly, notify Architect prior to commencing Work.

2. Coordinate locations of openings through floors, roofs and walls with Architectural, Mechanical and Electrical Drawings.

F. Documentation:

1. Submit documentation to verify accuracy of field engineering Work when requested by Architect.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Submittals.
   B. Quality Control Coordinator.
   C. Quality Control Requirements.
   D. Testing and inspection agencies and services.
   E. Manufacturers' field services.
   F. Defect Assessment.

1.02 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Quality Control Plan:
      1. Preconstruction Meeting: Submit for approval a written Contractor Quality Control (CQC) plan prior to meeting.
         a. Plan to be used for agenda.
      2. Contractor shall submit for approval a revised written plan within 14 days after pre-installation meeting.
      3. Changes to plan during contract period as necessary to obtain quality specified to be through agreement between Architect, Owner and Contractor.
      4. No change in approved plan may be made without written concurrence by Contractor, Owner and Architect.
      5. Include following:
         a. List of personnel responsible for quality control and assigned duties. Include each person's qualifications.
         b. Copy of a letter of direction to Contractor's Quality Control Supervisor outlining assigned duties.
         c. Methods of performing, documenting, and enforcing quality control of work.
      6. Contractor's Quality Control Daily Reports: Submit inspections and tests on first workday following date covered by report.
      7. Test Reports (Owners Testing Lab):
         a. Submit Daily Test Information Sheets with Quality Control Daily Reports.
         b. Submit failing test results and proposed remedial actions within four hours of noted deficiency.
         c. Submit three copies of complete test results not later than three calendar days after test was performed.
      8. Off-Site Inspection Reports: Submit prior to shipment.
C. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.

D. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
   1. Include:
      a. Date issued.
      b. Project title and number.
      c. Name of inspector.
      d. Date and time of sampling or inspection.
      e. Identification of product and specifications section.
      f. Location in the Project.
      g. Type of test/inspection.
      h. Date of test/inspection.
      i. Results of test/inspection.
      j. Compliance with Contract Documents.
      k. When requested by Architect, provide interpretation of results.

E. Certificates: When specified in individual specification sections, submit certification by manufacturer and Architect or installation/application subcontractor to Architect, in quantities specified for Product Data.

F. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

G. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
   1. Submit report in duplicate within 30 days of observation to Architect for information.
   2. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.

H. Shop Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.

1.03 QUALITY ASSURANCE

A. General:
   1. Quality of work: Contractor's responsibility.
   2. Testing: Responsibility of an Owner's independent testing laboratory
   3. Inspect and test Work often enough to ensure that quality of materials, workmanship, construction, finish, and functional performance is in compliance with applicable specifications and drawings.
   4. Quality Control Daily Reports shall be completed by Quality Control Supervisor.
   5. Test reports shall be completed by person performing test.

Project Number 195390
6. Architect may designate locations of tests.

B. Quality Control Coordinator:
   1. Contractor's Quality Control Coordinator shall be assigned no other duties.
      a. Coordinator shall responsible for work coordination of Building Envelope.
   2. Contractor's jobsite supervisory staff may be used to assist the Quality Control Contractor, supplemented as necessary by additional personal.
   3. Contractor's designated Quality Control Coordinator or competent supplementary personal shall be on the project site whenever contract work is in progress.

1.04 TESTING AND INSPECTION AGENCIES AND SERVICES

A. Owner will employ and pay for services of an independent testing agency to perform specified testing and inspection.

B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ON-SITE - QUALITY CONTROL REQUIREMENTS

A. Notification:
   1. Notify Architect at least 48 hours in advance of preparatory phase meeting.
   2. Notify Architect at least 24 hours in advance of the initial and follow-up phases.

B. Preparatory Phase: Perform before beginning each feature of work.
   1. Review submittal requirements with personnel directly responsible for the quality control work. As a minimum, Contractor's Quality Control Supervisor and foreman responsible for the feature of work shall be in attendance.
   2. Review applicable specifications sections and drawings related to feature of work.
   3. Ensure that copies of referenced standards related to sampling, testing, and execution for feature of work are available on site.
   4. Ensure that provisions have been made for field control testing.
   5. Examine work area to ensure that preliminary work has been completed.
   6. Verify field dimensions and advise the Architect of discrepancies with contract documents.
   7. Ensure that necessary equipment and materials are at project site and that they comply with approved shop drawings and submittals.

C. Initial Phase:
   1. As soon as work begins, inspect and test a representative portion of a particular feature of work for quality of workmanship.
   2. Review control testing procedures to ensure compliance with contract requirements.
3. Prepare a report on initial phase activities and discussions. Attach report to Contractor's Quality Control Daily Report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

D. Follow-Up Phase: Inspect and test as work progresses to ensure compliance with contract requirements until completion of work.

E. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be required on same feature of work for following reasons:
   1. Quality of on-going work is unacceptable.
   2. Changes occur in applicable quality control staff, on-site production supervision, or work crew.
   3. Work on a particular feature of work is resumed after a substantial period of inactivity.

3.02 TESTING AND INSPECTION

A. See individual specification sections for testing required.

B. Testing Agency Duties:
   2. Perform specified sampling and testing of products in accordance with specified standards.
   3. Ascertained compliance of materials and mixes with requirements of Contract Documents.
   4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
   5. Perform additional tests and inspections required by Architect.
   6. The approved testing agency shall select samples of materials to be tested at random; the contractor shall not select the samples.
   7. Submit reports of all tests/inspections specified.

C. Limits on Testing/Inspection Agency Authority:
   1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
   2. Agency may not approve or accept any portion of the Work.
   3. Agency may not assume any duties of Contractor.
   4. Agency has no authority to stop the Work.

D. Contractor Responsibilities:
   1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
   2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
   3. Provide incidental labor and facilities:
      a. To provide access to Work to be tested/inspected.
      b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
c. To facilitate tests/inspections.
d. To provide storage and curing of test samples.

4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.

5. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

E. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

F. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

G. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect. Payment for re-testing will be charged to the Contractor by deducting testing charges from the Contract Price.

1. If second test conforms to specifications, then Owner will pay for cost of second test.

3.03 MANUFACTURERS’ FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to Architect 10 days in advance of required observations.

C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.04 DEFECT ASSESSMENT

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

END OF SECTION
SECTION 01 42 16
DEFINITIONS AND REFERENCE STANDARDS

PART 1 GENERAL

1.01 SUMMARY

A. Section supplements the definitions contained in the General Conditions.

B. Other definitions are included in individual specification sections.

1.02 DEFINITIONS

A. Approved:
   1. When used in conjunction with Architect’s action on Contractor’s submittals, applications, and requests, is limited to Architect’s duties and responsibilities as stated in Conditions of Contract.


C. Directed:
   1. Terms such as “directed,” “requested,” “authorized,” “selected,” “approved,”
      “required,” and “permitted” mean directed by Architect, requested by Architect, and similar phrases.

D. Furnish:
   1. Means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

E. Indicated:
   1. Refers to graphic representations, notes, or schedules in Drawings; or to other paragraphs or schedules in Specifications and similar requirements in Contract Documents.
   2. Terms such as “shown,” “noted,” “scheduled,” and “specified” are used to help user locate reference. Location is not limited.

F. Install:
   1. Describes operations at Project site including actual unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

G. Installer:
   1. Contractor or another entity engaged by Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations.
   2. Installers are required to be experienced in operations they are engaged to perform.
   3. Term “experienced” when used with term “installer” means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
H. Owner: Means owner of project or his agent when applicable.

I. Product:
   1. Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result.
   2. Products may be new, never before used, or re-used materials or equipment.

J. Project Manual:
   1. Book-sized volume that includes procurement requirements (if any), contracting requirements, and specifications.

K. Project site:
   1. Space available to Contractor for performing construction activities, either exclusively or in conjunction with others performing other work as part of Project.

L. Provide:
   1. Means to furnish and install, complete and ready for intended use.

M. Regulations:
   1. Includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within construction industry that control performance of Work.

N. Testing Agencies:
   1. Independent entities engaged to perform specific inspections or tests, either at Project site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.03 PROJECT MANUAL

A. Divisions in Project Manual conform roughly to customary trade practice.
   1. This is done for convenience and shall not relieve Contractor of responsibility of furnishing every item indicated or specified whether properly segregated or not.

B. No responsibility will be assumed by Owner or Architect for omission or duplications by Contractor in completion of contract due to arrangement of material in Project Manual.

1.04 QUALITY ASSURANCE

A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard of date of issue specified in the individual specification sections, except where a specific date is established by applicable code.

C. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.
1.05 REFERENCES AND STANDARDS
   
   A. Minimum Quantity or Quality Levels: Quantity or quality level shown or specified shall be minimum provided or performed.

   B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.

1.06 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

   A. In event of conflict or discrepancy among the Contract Documents, interpretations will be based on the following priorities:
      1. Agreement.
      2. Addenda, with those of later date having precedence over those of earlier date.
      3. Supplementary Conditions.
      4. General Conditions of the Contracts.
      5. Schedules.
      6. Drawings and Specifications:
         a. In the case of inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect’s interpretation.
         b. Large Scale Drawings.
         c. Small Scale Drawings.
      7. Dimension numbers written on Drawings prevail and take precedence over Dimensions scaled from Drawings.

1.07 SPECIFICATION FORMAT AND CONTENT EXPLANATION (MF04)

   A. Divisions in Project Manual conform CSI MasterFormat 2004 and roughly to customary trade Work Results.

   B. MasterFormat 2004 edition numbering revision explained:
      1. One of the most significant changes in the MasterFormat 2004 Edition is the adoption of a six-digit numbering system in place of the familiar five-digit system that has been used in MasterFormat since the 1978 edition.
      2. MasterFormat 2004 six-digit numbering system provides exponentially more expansion spaces per level than the five-digit system, all but eliminating concerns about future expansion.

   C. MasterFormat 2004 Section Format is as follows:
      1. MasterFormat 2004 has adopted a six-digit numbering system in place of the familiar five-digit system that has been used in MasterFormat since the 1978 edition.
      2. Section Format numbering system of 11 22 33 is used in this specification. Other Section Format numbering systems that maybe used by consultants are 11 2233 or 112233. In all cases the numbering system shall be deemed the same and interchangeable within the Project Manual.
3. MasterFormat Divisions have been increased from 16 Divisions to 50 Divisions, with Divisions 00, 01 and 03-14 basically the same and the following revised:
   a. Division 02 – Existing Conditions:
      1) This division is now limited to “existing conditions,” construction practices that relate to items at the site at the commencement of work – selective demolition, subsurface and other investigation, surveying, site decontamination, and site remediation, among others.
      2) Material has been relocated to Divisions 30-39 in the Site and Infrastructure Subgroup. All site construction as well as heavy civil and infrastructure subject matter, including utility and pavement work are included in this Subgroup.
   b. Division 15 – Mechanical:
      1) Division 15 has been reserved for future expansion
      2) Material has been relocated to Division 22 – Plumbing and Division 23 – Heating, Ventilating, and Air Conditioning in the Facility Services Subgroup, Divisions 20-29.
   c. Division 16 – Electrical:
      1) Division 16 has been reserved for future expansion
      2) Material has been relocated to Division 26 – Electrical and Division 27 – Communications in the Facility Services Subgroup Divisions 20-29.
   d. For additional information on MasterFormat 2004 see www.csinet.org/masterformat.

D. MasterFormat 2004 numbering system use is encouraged for all parties. If using previous version of MasterFormat in submittals or application for payment, then use the following format:
   1. 00 11 22(01122), where the MasterFormat 2004 number is used first, followed by the old five-digest MasterFormat-95 number in parentheses.

E. Project Manual is done for convenience and shall not relieve Contractor of responsibility of furnishing every item indicated or specified whether segregated or not.

F. No responsibility will be assumed by Owner or Architect for omission or duplications by Contractor in completion of contract due to arrangement of material in Project Manual.

G. Specification Content:
   1. Abbreviated Language:
      a. Language used in Specifications and other Contract Documents is abbreviated.
      b. Words and meanings shall be interpreted as appropriate.
      c. Words implied, but not stated, shall be interpolated as sense requires.
      d. Singular words shall be interpreted as plural, and plural words as singular, where applicable as context indicates.
   2. Imperative mood and streamlined language are generally used in Specifications.
      a. Requirements expressed in imperative mood are to be performed by Contractor.
b. Subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by Contractor, or by others when so noted.

c. Words “shall,” “shall be,” or “shall comply with,” depending on context, are implied where a colon (:) is used within a sentence or phrase.

END OF SECTION
SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1  GENERAL

1.01  SECTION INCLUDES
A. Temporary utilities.
B. Temporary telephone service.
C. Temporary sanitary facilities.
D. Temporary Controls: Barriers, enclosures, and fencing.
E. Vehicular access and parking.
F. Waste removal facilities and services.
G. Project identification sign.
H. Field offices.

1.02  RELATED REQUIREMENTS
A. Section 01 35 53 - Security Procedures

1.03  REFERENCE STANDARDS
B. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04  QUALITY ASSURANCE
A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to:
   1. Building code requirements.
   2. Health and safety regulations.
   3. Utility company regulations.
   4. Police and fire department rules.
   5. Environmental protection regulations.
B. Standards: Comply with following:
   1. NFPA 241.
C. Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70.
D. Inspections:
1. Arrange for authorities having jurisdiction to inspect and test each temporary utility before use.
2. Obtain required certifications and permits.

1.05 TEMPORARY UTILITIES

A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.

B. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to type of fuel being consumed.

C. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces.
   1. In other locations, provide hand-carried, portable, UL-rated, Class ABC dry-chemical extinguishers or a combination of extinguishers of NFPA recommended classes for exposures.

D. Temporary Fire Protection:
   1. Install and maintain temporary fire protection facilities of types needed to protect against reasonably predictable and controllable fire losses until permanent fire protection facilities are operable.
   2. Comply with NFPA 10 and NFPA 241.
   3. Store combustible materials in containers in fire safe locations.
   4. Maintain unobstructed access to fire protection equipment.
   5. Provide supervision of welding operation, combustion type temporary heating units, and similar sources of fire ignition.

1.06 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

B. Provide self-contained, single-occupant toilet units of chemical, aerated recirculation or combustion type.
   1. Provide units properly vented and fully enclosed with a fiber-glass-reinforced polyester shell or similar non-absorbent material.

C. Wash Facilities:
   1. Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up.
   2. Dispose of drainage properly. Supply cleaning compounds.
   3. Provide safety showers, eyewash fountains and similar facilities for safety and sanitation of personnel.

D. Drinking Water Facilities:
   1. Provide containerized tap-dispenser bottled-water type drinking water units.

E. Maintain daily in clean and sanitary condition.

F. At end of construction, return facilities to same or better condition as originally found.
G. Rodent and Pest Control:
   1. Retain an exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests.
   2. Employ this service to perform extermination and control procedures at regular intervals so that Project will be free of pests and their residues at Substantial Completion.

1.07 LIFT AND HOISTS
A. Temporary Lifts and Hoists:
   1. Provide facilities for hoisting materials and employees.
   2. Truck cranes and similar devices used for hoisting materials are considered “tools and equipment” and not temporary facilities.
   3. Temporary Elevator Use: Refer to Division 14 Sections for elevators.

1.08 FENCING
A. Construction: Contractor's option.
B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.
   1. Enclose entire site or portion determined sufficient to accommodate construction operations to prevent people, dogs, and other animals from easily entering site, except by entrance gates.

1.09 EXTERIOR ENCLOSURES
A. Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
   Provide temporary weathertight enclosure for building exterior, including roof and exposed floors without roof covering.
   1. Vertical Openings: Close openings with plywood or similar materials.
      a. Provide temporary weather protection, remove standing and ponding water as soon as possible to prevent water damage.
   3. Install tarpaulins securely using fire-retardant-treated wood framing and other materials.
   4. Where temporary wood or plywood enclosure exceeds 100 sq. ft. in area, use fire-retardant-treated material for framing and main sheathing at fire rated walls, otherwise use any temporary weather protection material.
B. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
1.10 INTERIOR ENCLOSURES
   A. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

1.11 SECURITY
   A. Coordinate with Owner's security program.

1.12 VEHICULAR ACCESS AND PARKING
   A. Coordinate access and haul routes with governing authorities and Owner.
   B. Temporary Paving:
      1. Construct and maintain temporary roads and paving to accommodate traffic during construction period.
         a. Locate where same permanent facilities will be located; review proposed modifications to permanent paving with Architect.
   C. Provide and maintain access to fire hydrants, free of obstructions.
   D. Provide means of removing mud from vehicle wheels before entering streets.
   E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

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

1.14 PROJECT IDENTIFICATION
   A. Provide project identification sign of design and construction indicated on drawings.
   B. Prepare signs to provide directional information to construction personnel and visitors.
   C. No other signs are allowed without Owner permission except those required by law.

1.15 FIELD OFFICES
   A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack, and drawing display table.
   B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.
   C. Storage and Fabrication Sheds:
1. Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved.

1.16 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing facilities used during construction to original condition.

1.17 PROJECT CONDITIONS

A. Keep temporary services and facilities clean and neat in appearance.

B. Operate in a safe and efficient manner.

C. Relocate temporary services and facilities as Work progresses.

D. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

1.18 TERMINATION AND REMOVAL

A. Remove each temporary facility when need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion, unless otherwise requested by Owner or Architect.

B. Materials and facilities that constitute temporary facilities are Contractor’s property.

1. Owner reserves right to take possession of Project identification signs.

C. Remove temporary paving not intended for or acceptable for integration into permanent paving.

1. Where temporary paving has occurred in areas intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill of subsoil in area.

a. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawn.

2. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by governing authority.

D. Substantial Completion: Clean and renovate permanent facilities used during construction period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General product requirements.
B. Transportation, handling, storage and protection.
C. Product option requirements.
D. Substitution limitations.

1.02 DEFINITIONS

A. Products: Items purchased for incorporation in Work.
   1. Term “product” includes terms “material,” “equipment,” “system,” and terms of similar intent.
   2. “Named Products” are items identified by manufacturer's product name, including make or model number or other designation, listed in manufacturer's published product literature.

B. The term; 'Basis of Design', is used when a single product or system has been researched by the Architect and incorporated into the drawings and project manual. Generally the attributes for the Basis of Design are very specific. Listed manufacturers that are not the Basis of Design must compare those specific attributes and demonstrate that the quality and performance is comparable to or exceeds the product or system specified as basis of design.

C. Materials: Products shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of Work.

D. Equipment: Product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.03 SUBMITTALS

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

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

C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
   1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

1.04 QUALITY ASSURANCE

A. Source Limitations: Provide products of same kind from a single source to fullest extent possible.

B. Compatibility of Products: When given option of selecting products, Contractor is responsible for providing products and construction methods that are compatible with previously selected products and construction methods, or products specified to with those selected products to be compatible.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products according to manufacturer's recommendations.

B. Schedule delivery to minimize long-term storage at site.

C. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, or other losses.

D. Deliver products to site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

E. Inspect products upon delivery to ensure compliance with Contract Documents and to ensure that products are undamaged and properly protected.

F. Store products at site in a manner that will facilitate inspection and measurement of quantity or counting of units.

G. Store products subject to damage by weather above ground, under cover in a weathertight enclosure, and with ventilation adequate to prevent condensation.
   1. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 PRODUCTS

2.01 NEW PRODUCTS

A. Product Substitutions:
   1. Where products or manufacturers are named and accompanied by term equal, approved, or approved equal, comply with Product Substitution Procedures to obtain approval of an unnamed product.

B. Provide new products unless specifically required or permitted by Contract Documents.
C. Specified Standards, Codes, and Regulations: Where compliance with an imposed code, standard, or regulation is specified, provide a product that complies with that code, standard, or regulation

D. Visual Matching:
   1. Where matching a sample, Architect's decision will be final on whether a proposed product matches satisfactorily.

E. Visual Selection:
   1. Where product requirements include phrase “. . as selected from manufacturer's standard colors, patterns, textures, .. “ or a similar phrase, Architect will select color, pattern, and texture from product line selected that complies with other specified requirements.

### 2.02 PRODUCT OPTIONS

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

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

C. Proprietary Specification Requirements:
   1. Single product or manufacturer is named, provide product indicated.
   2. No substitutions are permitted.

D. Semi-proprietary Specification Requirements:
   1. Where two or more products or manufacturers are named, provide one of products indicated that complies with Specifications.
   2. No substitutions are permitted.

E. Specified Standards, Codes, and Regulations: Where compliance with an imposed code, standard, or regulation is specified, provide a product that complies with that code, standard, or regulation.

F. Inappropriate Product Selections:
   1. If Contractor believes specified product, method, or system is inappropriate for use, Contractor to notify Architect before performing Work in question.
   2. If notice of objection is not received prior to delivery to site, it will be assumed by Owner that Contractor agrees specified products, methods, and systems are appropriate for use in Project.

### PART 3 EXECUTION

#### 3.01 INSTALLATION OF PRODUCTS

A. Comply with manufacturer's instructions and recommendations for installation of products in applications indicated.
   1. Anchor each product securely in place, accurately located and aligned with other Work.
2. Clean exposed surfaces and protect as necessary from damage and deterioration.

B. Should job conditions or specified requirements conflict with Manufacturers' instructions, consult Architect for further instructions.

3.02 SUBSTITUTION LIMITATIONS

A. Definitions:
   1. Substitutions are considered only when proposed alternate is demonstrated as similar or greater value to what was specified. Address the following:
      a. The term; 'Basis of Design', is used when a single product or system has been researched by the Architect and incorporated into the drawings and project manual. Generally the attributes for the Basis of Design are very specific. Proposed Substitutions for Basis of Design must compare those specific attributes and demonstrate that the quality and performance is comparable to or exceeds the product or system specified.
      b. Provide a two column chart showing attributes for proposed substitution comparing those values to specified product or system.
      c. Provide a mark up of the design documents indicating how changes of proposed product or system will be required.

2. Substitutions: Contractor proposals for changes in products, materials, equipment, and methods of construction required by Contract Documents made during bidding and after award of Contract are considered to be requests for substitution.

3. Following are not considered to be requests for substitution for both Pre and Post Award:
   a. Revisions to Contract Documents requested by Owner or Architect.
   b. Specified options of products and construction methods included in Contract Documents.
   c. Contractor's determination of and compliance with regulations and orders issued by governing authorities.

B. Substitutions received before execution of Contract will be processed as Addenda, if accepted, prior to execution of Contract, and thereafter included in Contract Documents.

C. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without compliance with procedures outlined below, or when acceptance will require revision to the Contract Documents.
   1. Where manufacturers, products, or systems listed in Specifications are not followed with "or approved" or "Substitutions: Provide in accordance with requirements of Section 01 60 00" it is intended that substitutions are not permitted.

D. Contractor's Responsibilities
   1. Contractor's responsibilities for substitution requests made after award of Contract are as follows:
      a. Investigate proposed products and determine they are equal or superior in respects to products specified.
      b. Provide same guarantee for accepted substitutions as for products specified.
c. Make changes in, and coordinate, Work as may be required to incorporate and install accepted substitutions.

d. Waive claims for additional costs which subsequently become apparent which are related to substitutions.

E. Architect will consider request for substitutions no less than 10 working days prior to Bid Date, unless otherwise stipulated in Instructions to Bidders.

F. Equality of different materials or products shall be determined by methods set forth in this Section.
1. No product or material shall be arbitrarily presumed to be "equal" without having first being so judged by appropriate procedures.
2. Provide comparison chart itemizing specified parts or components of specified and proposed substitutions.
   a. First column of chart is the specified product, second column is proposed product. Each row is a specified attribute or important attribute to performance.
3. Comparative analysis to be evaluated by Architect or Engineer approving substitution.
   a. Architect will be sole judge of acceptability of any proposed substitution and decision is final.

3.03 SUBSTITUTIONS REQUESTED AFTER AWARD OF CONTRACT

A. Substitutions received after award of Contract: Requests for substitution received after award Contract will not be considered, except as a Contractor's Request for Change.
1. Architect will be sole judge of acceptability of any proposed substitution.
2. Substitutions reviewed in this manner will be processed as Change Orders, if accepted.

B. Architect will receive and consider Contractor's request for substitution after award of Contract when one or more of following conditions are satisfied, as determined by Architect. If following conditions are not met, Architect will return requests without action except to record noncompliance with these requirements.
1. Specified product cannot be provided within Contract time.
   a. Architect will not consider request of products that: cannot be provided as a result of failure to pursue product promptly or coordinate activities properly.
2. Specified product cannot receive necessary approval by a governing authority, and requested substitution can be approved.
3. Specified product cannot be coordinated with other materials and Contractor certifies that proposed substitution can be coordinated.
4. Specified product cannot provide required warranty and Contractor certifies that proposed substitution provides warranty.
5. Requested substitution offers Owner a substantial advantage in cost, time, or other considerations after deducting additional Owner's cost of compensation to Architect for redesign and evaluation services, increased cost of other construction, and similar considerations.
3.04 TRANSPORTATION AND HANDLING

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

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

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

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

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

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

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

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

3.05 STORAGE AND PROTECTION

A. Schedule delivery to minimize long-term storage at site.

B. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 74 19.

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

D. Store with seals and labels intact and legible.

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

F. For exterior storage of fabricated products, place on sloped supports above ground.
G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

H. Comply with manufacturer’s warranty conditions, if any.

I. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
   1. Maintain temperature and humidity within range required by manufacturer’s instructions.

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

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

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

**END OF SECTION**
TO: ______________________________________________________________________________

PROJECT: _________________________________________________________________________

SPECIFIED ITEM: ____________________________________________________________________

SECTION __________ PAGE ______ PARAGRAPH __________________

DESCRIPTION: _____________________________________________________________________

PROPOSED SUBSTITUTION

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of request including identification of applicable data portions.

Attached data also includes description of changes to contract documents and proposed substitution requires for proper installation

UNDERSIGNED CERTIFIES FOLLOWING ITEMS, UNLESS MODIFIED BY ATTACHMENTS, ARE CORRECT:

1. Proposed substitution does not affect dimensions shown on drawings.
2. Undersigned pays for changes to building design, including engineering design, detailing, and construction costs caused by proposed substitution.
3. Proposed substitution has no adverse effect on other trades, construction schedule, or specified warranty requirements.
4. Maintenance and service parts available locally or readily obtainable for proposed substitution.

UNDERSIGNED FURTHER CERTIFIES FUNCTION, APPEARANCE, AND QUALITY OF PROPOSED SUBSTITUTIONS ARE EQUIVALENT OR SUPERIOR TO SPECIFIED ITEM.

UNDERSIGNED AGREES TO TERMS AND CONDITIONS FOR SUBSTITUTIONS FOUND IN BIDDING DOCUMENTS TO THIS PROPOSED SUBSTITUTION.

Submitted By: __________________________________________________________________

Name (Printed or typed) General Contractor (if after award of Contract)

SIGNATURE: __________________________ FOR USE BY A/E __________________________

FIRM NAME: _______________ ___APPROVED ___APPROVED AS NOTED

ADDRESS: _______________ ___NOT APPROVED ___RECEIVED TOO LATE

CITY, STATE, ZIP: _______________ BY: _________________________

DATE: __________________________

TEL: __________________________ REMARKS: __________________________
SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Examination, preparation, and general installation procedures.
B. Requirements for alterations work, including selective demolition.
C. Pre-installation meetings.
D. Surveying for laying out the work.
E. Cleaning and protection.
F. Starting of systems and equipment.
G. Demonstration and instruction of Owner personnel.
H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
I. General requirements for maintenance service.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
   1. On request, submit documentation verifying accuracy of survey work.
   2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and
      locations of the work are in compliance with Contract Documents.
   3. Submit surveys and survey logs for the project record.
C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
   1. Indicate extent of demolition, removal sequence, bracing and shoring, and location
      and construction of barricades and fences. Include design drawings and
      calculations for bracing and shoring.
   2. Identify demolition firm and submit qualifications.
   3. Include a summary of safety procedures.
D. Cutting and Patching: Submit written request in advance of cutting or alteration that
   affects:
   1. Structural integrity of any element of Project.
   2. Integrity of weather exposed or moisture resistant element.
   3. Efficiency, maintenance, or safety of any operational element.
5. Work of Owner or separate Contractor.

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

1.04 QUALIFICATIONS

A. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of surveyor’s Errors and Omissions insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities,

B. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in the State in which the Project is located. Employ only individual(s) trained and experienced in establishing and maintaining horizontal and vertical control points necessary for laying out construction work on project of similar size, scope and/or complexity.

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

1.05 PROJECT CONDITIONS

A. Protect site from puddling or running water.

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

C. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
   1. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.

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

E. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.06 COORDINATION

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

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

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

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

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

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

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

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

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

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 60 00 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

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

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

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

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

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

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

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
B. Require attendance of parties directly affecting, or affected by, work of the specific section.
C. Notify Architect four days in advance of meeting date.
D. Prepare agenda and preside at meeting:
   1. Review conditions of examination, preparation and installation procedures.
   2. Review coordination with related work.
E. Record minutes and distribute copies within ten days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.
B. Promptly notify Architect of any discrepancies discovered.
C. Contractor shall locate and protect survey control and reference points.
D. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
E. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
G. Utilize recognized engineering survey practices.
H. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
   1. Grid or axis for structures.
I. Periodically verify layouts by same means.
3.05 GENERAL INSTALLATION REQUIREMENTS

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

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

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

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

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

3.06 ALTERATIONS

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

B. Remove existing work as indicated and as required to accomplish new work.
   1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
   2. Remove items indicated on drawings.
   3. Relocate items indicated on drawings.
   4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
   5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, and Electrical): Remove, relocate, and extend existing systems to accommodate new construction.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
   2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
   3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
      a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
      b. Provide temporary connections as required to maintain existing systems in service.
D. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.

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

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

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

H. Clean existing systems and equipment.

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

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

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

3.07 CUTTING AND PATCHING - See Section 01 73 29.

3.08 PROGRESS CLEANING

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

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

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

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

3.09 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.
C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

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

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

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

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

3.10 SYSTEM STARTUP

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

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

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

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

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

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

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

3.11 DEMONSTRATION AND INSTRUCTION

A. Demonstrate operation and maintenance of products to Owner’s personnel two weeks prior to date of Substantial Completion.

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

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

D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner’s personnel.
3.12 ADJUSTING
   A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.13 FINAL CLEANING
   A. Use cleaning materials that are nonhazardous.
   B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
   C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
   D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
   E. Clean filters of operating equipment.
   F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
   G. Clean site; sweep paved areas, rake clean landscaped surfaces.
   H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.14 CLOSEOUT PROCEDURES
   A. Make submittals that are required by governing or other authorities.
      1. Provide copies to Architect and Owner.
   B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
   C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
   D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
   E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
   F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
   G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.15 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.

B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.

E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION
SECTION 01 73 29
CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Requirements for cutting, fitting, and patching of Work required to:
   1. Make several parts fit properly.
   2. Uncover work to provide for installing, inspecting, or both, of ill-timed work.
   3. Remove and replace work not conforming to requirements of Contract Documents.
   4. Remove and replace defective work.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Written Proposal: Where cutting and patching involves structural elements, submit proposal describing procedures. Include following information in proposal:
   1. Describe extent of cutting and patching required, how it will be performed, and why it cannot be avoided.
   2. Indicate changes to structural elements, and changes in appearance of visual elements. Include structural calculations.
   3. List products proposed for use and entities that will perform the Work.
   4. Indicate dates that work will be performed, duration of Work, and when work will be uncovered for Architect's observation.
   5. List utilities that cutting and patching work will affect.
   6. Submit cost estimate and secure Architect's approval of cost estimate and type of reimbursement before proceeding with cutting and patching

1.03 QUALITY ASSURANCE
A. Structural Work:
   1. Do not cut and patch structural elements in a manner that would change their load carrying capacity or load deflection ratio.
   2. Obtain approval before cutting and patching structural elements.
B. Do not cut and patch operating elements in a manner that would reduce their capacity to perform as intended, cause increased maintenance, or decreased operational life or safety.
C. Do not cut and patch exposed elements of construction that in Architect's opinion would reduce visual aesthetic qualities, or result in visual evidence of cutting and patching.
   1. Remove and replace construction cut and patched in a visually unacceptable manner.

1.04 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Cut and patch construction using methods and with materials in such a manner as to not void any warranties required or existing.
PART 2 PRODUCTS

2.01 MATERIALS

A. Use new materials identical to existing materials.
B. Exposed surfaces: Where identical materials are not available, use materials that visually match existing adjacent surfaces as nearly as possible.
C. Use materials whose installed performance is equal or better to that of existing materials.

PART 3 EXECUTION

3.01 INSPECTION

A. Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching, and backfilling.
B. After uncovering Work, inspect conditions affecting installation of new Work.
C. Discrepancies: If uncovered conditions are not as anticipated, immediately notify Architect and secure direction before proceeding further.
   1. Do not proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Provide temporary support of work to be cut, including shoring and bracing as required to maintain structural integrity of Work.
B. Protect existing construction during cutting and patching to prevent damage.

3.03 PERFORMANCE

A. Use skilled workers trained and experienced in necessary crafts and familiar with requirements and methods required to restore surfaces to their original condition.
B. Perform excavating and backfilling in accordance with applicable requirements of Division 2 Sections of these Specifications.
C. Provide dust proof barriers where necessary to protect existing surfaces.

3.04 CUTTING

A. Execute cutting and patching to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
C. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

E. When masonry construction must be pierced, furnish and install a steel pipe sleeve in opening and grout in place neatly.
   1. Leave grout surface to match existing finish.
   2. Fabricate sleeve one inch in diameter larger than pipe or insulation.
   3. Back and caulk between sleeve and pipe with waterproof sealant.
   4. At penetrations of fire-resistant rated walls, partitions, ceiling, or floor construction:
      Seal voids with fire-resistant rated materials as required to maintain assembly of fire-resistant rating of penetrated element, or as required by Building Code.

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

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

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

I. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

J. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.

K. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.05 PATCHING

A. Restore work with new products in accordance with requirements of Contract Documents.
   1. Perform fitting and adjusting of products to provide a finished installation complying with tolerances and finishes specified for type of construction involved.
   2. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

B. Refinish surfaces to match existing adjacent finish, patching with seams that are durable and as invisible as possible.
   1. Where possible, inspect and test patched area to demonstrate integrity of seam.
   2. For continuous surfaces, refinish to nearest intersection or natural break.
   3. For assembly, refinish entire unit.
   4. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining work in manner that will eliminate evidence of patching and refinishing.
C. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.

D. Patch or replace surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

E. Where replacement of equipment and fixtures is required, restore existing plumbing, heating, ventilation, air-conditioning, electrical, and similar systems to full operational condition.

F. When finished surfaces are cut so that smooth transition with existing or new work is not possible, submit to Architect, for approval, recommendation for terminating surface along straight line at natural line of division.

1. Where change of plane of 1/4 inch or more occurs, submit to Architect, for approval, recommendation for providing smooth transition.

3.06 CLEANING

A. Clean areas and spaces where cutting and patching work is performed.

END OF SECTION
SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

A. Owner requires that this project generate the least amount of trash and waste possible.

B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.

D. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration:
   1. Aluminum and plastic beverage containers.
   2. Corrugated cardboard.
   3. Wood pallets.
   4. Clean dimensional wood.
   5. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
   7. Gypsum drywall and plaster.
   11. Rigid foam insulation.

E. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.

F. Methods of trash/waste disposal that are not acceptable are:
   1. Burning on the project site.
   2. Burying on the project site.
   3. Dumping or burying on other property, public or private.
   4. Other illegal dumping or burying.

G. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 DEFINITIONS

A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.

C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.

D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.

E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.

F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.

G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.

H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.

I. Return: To give back reusable items or unused products to vendors for credit.

J. Reuse: To reuse a construction waste material in some manner on the project site.

K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.

L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.

M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.

N. Toxic: Poisonous to humans either immediately or after a long period of exposure.

O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.

P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.03 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Landfill Alternatives Proposal: Within 10 calendar days after receipt of Notice of Award of Bid, or prior to any trash or waste removal, whichever occurs sooner, submit a projection of trash/waste that will require disposal and alternatives to landfilling, with net costs.
   1. Waste Management Plan: Submit draft plan with landfill alternatives as outlined herein.
PART 2 PRODUCTS

2.01 PRODUCT SUBSTITUTIONS

A. See Section 01 60 00 - Product Requirements for substitution submission procedures.

B. For each proposed product substitution, submit the following information in addition to requirements specified in Section 01 60 00:
   1. Relative amount of waste produced, compared to specified product.
   2. Cost savings on waste disposal, compared to specified product, to be deducted from the Contract Sum.

PART 3 EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

A. See Section 01 20 00 - Price and Payment Procedures: Payment procedures.

   1. Submit with each Application for Progress Payment a Summary of Waste Generated by the Project.
   2. Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment.
   3. Summary shall be submitted on a form acceptable to the Owner and shall contain the following information:
      a. Amount of waste (in tons) landfilled from the Project, the identity of the transfer station/landfill, the total amount of tipping fees paid at the landfill, the transportation cost, and the total disposal cost. Include manifests, weight tickets, receipts, and invoices.
      b. For each material recycled, reused, or salvaged from the Project, the amount (in tons), the date removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, and the net total cost or savings of salvage or recycling each material. Attach manifests, weight tickets, receipts, and invoices.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.

B. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

C. Meetings: Discuss trash/waste management goals and issues at project meetings.

   2. Include subcontractors affected by the Waste Management Plan as well as Owner designated representative(s).
3. Preconstruction meeting.
4. Regular job-site meetings.

D. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
1. As a minimum, provide:
   a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
   b. Separate dumpsters for each category of recyclable.
   c. Recycling bins at worker lunch area.
2. Provide containers as required.
3. Provide adequate space for pick-up and delivery and convenience to subcontractors.
4. If an enclosed area is not provided, clearly lay out and label a specific area on-site.
5. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.

E. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.

F. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.

G. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.

H. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

END OF SECTION
SECTION 01 78 00
CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Project Record Documents.
B. Operation and Maintenance Data.
C. Warranties and bonds.
D. Inspection procedures

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

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 SUBSTANTIAL COMPLETION
A. Prior to requesting inspection for certification of Substantial Completion, complete following.
   1. In Application for Payment that coincides with, or first follows, date of Substantial Completion is claimed, show 100 percent completion for portion of Work claimed as substantially complete.
a. Include supporting documentation for completion as indicated in these Contract Documents.
b. If 100 percent cannot be shown, include a list of incomplete items, value of incomplete construction, and reasons Work is not complete.

2. Advise Owner of pending insurance changeover requirements.

3. Submit warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.

4. Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities.
a. Include occupancy permits.

5. Submit:
   a. Record Drawings
   b. Record Specifications
   c. Maintenance manuals
   d. Final project photographs
   e. Damage or settlement surveys
   f. Property surveys
   g. Other final record information.

6. Deliver tools, spare parts, extra stock, and similar items.

7. Make final changeover of permanent locks and transmit keys to Owner.
a. Advise Owner's personnel of changeover in security provisions.

8. Complete startup testing of systems and instruction to Owner's operation and maintenance personnel.

9. Discontinue and remove temporary facilities from site, along with mockups, construction tools, and similar elements.

10. Complete final cleanup requirements.

11. Touch up and otherwise repair and restore marred, exposed finishes, including touchup painting.

B. Inspection Procedures:

1. On receipt from contractor a written request for inspection with certification the project is substantially complete and a deficiency list, Architect will proceed with an inspection or advise Contractor of unfilled requirements.
a. Architect shall prepare a deficiency list within seven calendar days.

2. Architect will prepare Certificate of Substantial Completion following inspection or advise Contractor of construction that must be completed or corrected before certificate can be issued.
a. Architect will reinspect once when requested with assurance that punch list and Work is substantially complete.
b. Results of completed inspection will form basis of requirements for Final Acceptance.

3. Owner will allow Contractor no longer than 30 calendar days from Date of Substantial Completion to remedy deficiencies.
3.02 FINAL ACCEPTANCE

A. Prior to requesting final inspection for certification of final acceptance and final payment, submit following:
   1. Final payment request with releases, including insurance certificates for products and systems where applicable.
   2. Updated final statement accounting for final additional changes to Contract Sum.
      a. Architect will prepare a final Change Order after final acceptance showing adjustments to Contract Sum which were not made previously by Change Orders.
   3. Certified copy of Architect's final inspection list of items to be completed or corrected, endorsed and dated by Architect.
      a. Certification to state each item has been completed or corrected or otherwise resolved for acceptance.
   4. Consent of Surety to Final Payment.
   5. Evidence of final, continuing insurance coverage complying with insurance requirements.

B. Reinspection Procedure:
   1. Architect will reinspect to verify status of completion upon receipt of notice that Work, including list of items from earlier inspection, has been completed.
      a. Indicate items for which completion is delayed under circumstances acceptable to Owner and Architect.
   2. If Work is found to be complete following final inspection, Architect will issue a certificate of final acceptance.
   3. Should Architect and Owner determine that Work is incomplete or defective:
      a. Architect will promptly notify Contractor, in writing, listing incomplete or defective Work.
      b. Contractor to remedy deficiencies promptly, and notify Architect when ready for reinspection.

3.03 PROJECT RECORD DOCUMENTS

A. Mark Drawings to show actual installation and construction where construction varies substantially from Work as shown.
   1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note.
   2. Date entries, and note related Change Order numbers where applicable.
   3. Call attention to entries by a "cloud" drawn around areas affected.
   4. Where overlapping changes occur, mark with different colors.

B. Conversion of schematic layouts:
   1. Design of future modifications of facility may require accurate information as to final physical layout of items which are shown schematically on Drawings.
   2. Show on Project set of Record Drawings, by dimension accurate to within one inch, centerline of each run of items shown schematically on Drawings. Clearly identify item by accurate note such as "cast iron drain", "galv. water", and like. Show, by
C. Ensure entries are complete and accurate, enabling future reference by Owner.

D. Store record documents separate from documents used for construction.

E. Record information concurrent with construction progress.

F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
   1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
   2. Field changes of dimension and detail.
   3. Details not on original Contract drawings.

G. Final Record Documents: Prior to request for Substantial Completion, secure from Architect at (1) One complete set of PDF copy of Contract Drawings.
   1. Carefully transfer change data shown on Project set of Record Drawings to corresponding PDF copy, coordinating changes as required.
   2. Clearly indicate at each affected detail and other drawings a full description of changes made during construction, and actual location of items.
   3. Show final location of electrical junction boxes and outlets, telephone and data outlets, supply and return registers, and like.
   4. Call attention to entries by a "cloud" drawn around areas affected.
   5. Make changes neatly, consistently, and with proper media to assure longevity and clear reproduction.

3.04 OPERATION AND MAINTENANCE DATA

A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.05 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:
   1. Product data, with catalog number, size, composition, and color and texture designations.
   2. Information for re-ordering custom manufactured products.
B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.


D. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

### 3.06 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:
   1. Description of unit or system, and component parts.
   2. Identify function, normal operating characteristics, and limiting conditions.
   3. Include performance curves, with engineering data and tests.
   4. Complete nomenclature and model number of replaceable parts.

B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

E. Provide servicing and lubrication schedule, and list of lubricants required.

F. Include manufacturer's printed operation and maintenance instructions.

G. Include sequence of operation by controls manufacturer.

H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.

I. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

J. Additional Requirements: As specified in individual product specification sections.

### 3.07 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
B. Where systems involve more than one specification section, provide separate tabbed divider for each system.

C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.

D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.

E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.

F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.

G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.

H. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.

I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

J. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.

K. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
   1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
   2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
      a. Significant design criteria.
      b. List of equipment.
      c. Parts list for each component.
   3. Part 3: Project documents and certificates, including the following:
      a. Shop drawings and product data.

L. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

M. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
3.08 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner’s permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

END OF SECTION
SECTION 02 41 09
SELECTIVE STRUCTURE DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Removal of designated building equipment and fixtures.
B. Removal of designated construction.
C. Products and installation for patching and extending Work.
D. Disposal of materials.
E. Repair of damaged surfaces, finishes, and cleaning.

1.02 REGULATORY REQUIREMENTS
A. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.
B. Obtain required permits from authorities.
C. Do not close or obstruct egress from any building exit or site exit.
D. Do not disable or disrupt building fire or life safety systems without 3 days' prior written notice to Owner.
E. Conform to applicable regulatory procedures when hazardous or contaminated materials are discovered.

1.03 FIELD CONDITIONS
A. Conduct demolition to minimize interference with adjacent and occupied building areas.
B. Cease operations immediately if structure appears to be in danger and notify Architect. Do not resume operations until directed.

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK
A. New Materials: As specified in product Sections; match existing Products and work for patching and extending work.
   1. Where new materials are indicated in Drawings and product Section for material is not included in Project Manual, provide new materials as specified in Drawings.
B. Type and Quality of Existing Products: Determine by inspection and testing Products where necessary, referring to existing Work as a standard.

PART 3 EXECUTION

3.01 PREPARATION
A. Provide, erect, and maintain temporary barriers at locations indicated.
B. Erect and maintain weatherproof closures for exterior openings.

C. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued building occupancy.

D. Protect existing materials that are not to be demolished.

E. Prevent movement of structure; provide bracing and shoring.

F. Notify affected utility companies before starting work and comply with their requirements.

G. Mark location and termination of utilities.

3.02 DEMOLITION

A. Disconnect, remove, and identify designated utilities within demolition areas.

B. Demolish in an orderly and careful manner. Protect existing supporting structural members.

C. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete.
   1. Replace materials as specified for finished Work.

D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.

E. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

F. Remove materials as demolition progresses. Upon completion of demolition, leave areas in clean condition.

G. Remove temporary facilities.

3.03 INSTALLATION

A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate Owner occupancy.

B. Project Finishes: Complete in all respects including operational mechanical and electrical work.

C. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to specified condition.

D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.

E. In addition to specified replacement of equipment and fixtures restore existing plumbing, heating, ventilation, air conditioning, and electrical systems to full operational condition.

F. Install Products as specified in individual technical specification sections.
3.04 TRANSITIONS
A. Where new Work abuts or aligns with existing, perform a smooth and even transition.
   1. Patched Work to match existing adjacent Work in texture and appearance.
B. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

3.05 ADJUSTMENTS
A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
B. Where a change of plane of 1/4 inch or more occurs, submit to Architect a recommendation for providing a smooth transition.
C. Trim existing doors as necessary to clear new floor finish.
   1. Refinish trim as required.
D. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
E. Fit work at penetrations of surfaces as specified in Section 01 73 29 - Cutting and Patching.

3.06 FINISHES
A. Finish surfaces as specified in individual technical specification sections.
B. Finish patches to product uniform finish and texture over entire area.
   1. When finish cannot be matched, refinish entire surface to nearest intersections.

3.07 CLEANING
A. Clean Owner occupied areas affected by Work of this Project.

3.08 SCHEDULES
A. Remove, store and protect the following materials and equipment:
   1. Rooftop vent hoods as indicated on drawings.
   2. Mechanical control panels and associated dials, gauges and piping.
B. Protect the following materials and equipment to remain in place:
   1. Roof sheathing - See Section 01 22 00 Unit prices.
   2. Existing columns, slabs, beams and other structural elements.

END OF SECTION
SECTION 06 10 00
ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Sheathing.
B. Concealed wood blocking, nailers, and supports.

1.02 REFERENCE STANDARDS
C. ASTM C1513 - Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections; 2018.
E. AWPA P5 - Standard for Waterborne Preservatives; 2014.
H. WCLIB (GR) - Standard Grading Rules for West Coast Lumber No. 17; 2015.
I. WWPA G-5 - Western Lumber Grading Rules; 2017.

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.

1.04 QUALITY ASSURANCE
A. Lumber: Comply with PS 20 and approved grading rules and inspection agencies.
   1. Acceptable Lumber Inspection Agencies: WCLB and WWPA.
   2. Lumber of other species or grades, or graded by other agencies, is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.

1.05 GRADE AND TREATMENT STAMPS
A. Identify each piece of framing lumber by grade stamp of West Coast Lumber Inspection Bureau, Western Wood Products Association.
B. Identify each wood sheathing panel as to species, grade, span rating and glue type by stamp of American Plywood Association.

Project Number 195390
C. Stamp each preservative treated lumber piece with AWPB grade stamp or furnish certificate of inspection with each shipment.

D. Identify each fire retardant treated wood piece, lumber and sheathing, with classification marking of UL, Timber Products Inspection, Inc., or other testing and inspecting agency acceptable to Architect and authorities having jurisdiction.

1.06 DELIVERY, STORAGE, AND HANDLING

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

B. Do not overload, in place, floor or roof framing with temporarily stored materials.

PART 2 PRODUCTS

2.01 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

A. Grading Agency: West Coast Lumber Inspection Bureau; WCLIB (GR).

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

C. Moisture Content: Kiln-dry or MC15.

D. Stud Framing (2 by 2 through 2 by 6):
   2. Grade: No. 2.

E. Joist, Rafter, Small Beam, and Stair Framing (2 by 6 through 4 by 16):
   1. Species and Grades: As indicated on drawings for various locations.

F. Miscellaneous Framing, Blocking, Nailers, Grounds, and Interior Furring:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.
   3. Size: 2 by 8 unless otherwise noted.

2.02 CONSTRUCTION PANELS

A. Plywood Roof Sheathing: APA Structural I Rated Sheathing, Exterior Exposure Class, as indicated on drawings and as follows:
   1. Thickness: As indicated on drawings.
   2. Oriented-strand-board not permitted.
   3. Provide tongue and groove edges.

2.03 ACCESSORIES

A. Fasteners and Anchors:
   1. Provide fasteners of size and type indicated that comply with requirements specified for material and manufacture.

Project Number 195390
a. Size: Thickness and of sufficient length to penetrate studs a minimum 3/4 inch.


2.04 FACTORY WOOD TREATMENT

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
   1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

B. Preservative Treatment:
      a. Meeting AWPA P5 requirements and acceptable to authorities having jurisdiction and one of the following:
         1) Chromated copper arsenate (CCA).
         2) Ammoniacal, or amine, copper quat (ACQ).
      b. Treat lumber in contact with roofing, flashing, or waterproofing.
         1) Including wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members.
      c. Treat lumber in contact with masonry, concrete, or outside of weather barrier membrane.
         1) Including wood sills, sleepers, blocking, furring, stripping, and similar concealed members.
      d. Treat lumber less than 18 inches above grade.
      e. Treat items indicated on Drawings.

PART 3 EXECUTION

3.01 PREPARATION

A. Where wood framing bears on cementitious foundations, install full width sill flashing continuous over top of foundation, lap ends of flashing minimum of 4 inches and seal.

B. Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.

C. Coordinate installation of rough carpentry members specified in other sections.

3.02 INSTALLATION - GENERAL

A. Install material in accordance with manufacturers instructions.

B. Select material sizes to minimize waste.

C. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
D. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

E. Framing shall be dry with 19 percent maximum moisture content at time of covering.

3.03 BLOCKING, NAILERS, AND SUPPORTS

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

B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
   1. Install fire stop blocking in wood framed walls and partitions at each floor level and at ceiling line of top story.
   2. Install smoke stop blocking at combustible blind spaces exceeding 10 feet in any dimension, to create a barrier to passage of flame at 10 feet maximum intervals. Do same at furred spaces and utility chases.
   3. Install smoke stop blocking at double stud wood-framed walls and partitions at maximum intervals of 10 feet in any dimension.
   4. Install smoke stop blocking along and in line with run of each stairway in adjacent wood stud walls and partitions.

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

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

E. Bridging:
   1. Install wood cross bridging, not less than 2 x 3 inch nominal, 16 gauge steel cross bridging of equal strength, or solid blocking between joists where span of joists exceeds 8 feet.
   2. Install bridging at a maximum distance of 8 feet between a line of bridging and a joist bearing.
   3. Do not anchor cross bridging until dead loads are in place. Space cross bridging members 1/4 inch minimum apart to avoid rubbing.

3.04 ROOF-RELATED CARPENTRY

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

B. Provide pressure treated wood curb at roof openings except where prefabricated curbs are specified and where specifically indicated otherwise. Form corners by alternating lapping side members.
   1. Shim curb to make level.
3.05 INSTALLATION OF CONSTRUCTION PANELS

   1. Space panels 1/8 inch apart at edges and 1/16 inch at ends.

B. Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
   1. Use sheathing clips between roof framing members.
   2. Provide solid edge blocking between sheets.
   3. Nail panels to framing; staples are not permitted.

C. Fastening Methods: Fasten panels as indicated below:
   1. Wall, Roof, and Shear Panel Sheathing:
      a. Provide minimum size, spacing and location per Building Code.
      b. Refer to Drawings for special nailing requirements.
      c. Nail to wood framing.
      d. Space panels 1/8 inch apart at edges and ends.
   2. Plywood Backing Panels: Nail or screw to supports.

3.06 SITE APPLIED WOOD TREATMENT

A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts, complying with manufacturer's instructions.

B. Allow preservative to dry prior to erecting members.

3.07 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00.

B. Tests of wood framing moisture content may be performed at any time and before finish cover to ensure conformance with specified requirements.
   1. Wood framing to be dry with 19 percent maximum moisture content.

3.08 CLEANING

A. Waste Disposal: Comply with the requirements of Section 01 74 19 - Construction Waste Management and Disposal.
   1. Comply with applicable regulations.
   2. Do not burn scrap on project site.
   3. Do not burn scraps that have been pressure treated.
   4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.

B. Do not leave any wood, shavings, sawdust, etc. on the ground or buried in fill.

C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION
SECTION 07 01 50.19
PREPARATION FOR RE-ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Replacement of existing roofing system in preparation for entire new roofing system.
   B. Removal of existing flashing and counterflashings.
   C. Temporary roofing protection.

1.02 RELATED REQUIREMENTS
   A. Section ____ - ____: Roof system.

1.03 PRICE AND PAYMENT PROCEDURES
   A. See Section 01 22 00 - Unit Prices, for additional unit price requirements.
      1. Repair Existing Roof Wood Decking:
         a. Basis of Measurement: By the square foot.
         b. Basis of Payment: Includes replacing decking with new material of same thickness.

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Coordinate with affected mechanical and electrical work associated with roof penetrations.
   B. Preinstallation Meeting: Convene one week before starting work of this section.
      1. Attendees:
         a. Architect.
         b. Contractor.
         c. Owner.
         d. Installer.
         e. Roofing system manufacturer’s field representative.
      2. Meeting Agenda: Provide agenda to participants prior to meeting in preparation for discussions on the following:
         a. Removal and installation schedule.
         b. Necessary preparatory work.
         c. Protection before, during, and after roofing system installation.
         d. Removal of existing roofing system.
         e. Installation of new roofing system.
         f. Temporary roofing and daily terminations.
         g. Transitions and connection to and with other work.
         h. Inspections and testing of installed systems.

1.05 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Submit for each type of material.

1.06 QUALITY ASSURANCE
A. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING
A. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

1.08 FIELD CONDITIONS
A. Do not remove existing roofing membrane when weather conditions threaten the integrity of building contents or intended continued occupancy.
B. Maintain continuous temporary protection prior to and during installation of new roofing system.
C. Provide notice at least three days before starting activities that will affect normal building operations.
D. Verify that occupants have been evacuated from building areas when work on structurally impaired roof decking is scheduled to begin.
E. Owner will occupy building areas directly below re-roofing area.
   1. Provide Owner with at least 48 hours written notice of roofing activities that may affect their operations and to allow them to prepare for upcoming activities as necessary.

PART 2 PRODUCTS
2.01 MATERIALS
A. Patching Materials: Provide necessary materials in accordance with requirements of existing roofing system.
B. Temporary Roofing Protection Materials:
   1. Contractor's responsibility to select appropriate materials for temporary protection of roofing areas as determined necessary for this work.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that existing roof surface has been cleared of materials being removed from existing roofing system and ready for next phase of work as required.

3.02 PREPARATION
A. Sweep roof surface clean of loose matter.
B. Remove loose refuse and dispose of properly off-site.
3.03 MATERIAL REMOVAL
   A. Remove only existing roofing materials that can be replaced with new materials the same day.
   B. Remove metal counter flashings.
   C. Remove damaged portions of roofing membrane, perimeter base flashings, flashings around roof protrusions, insulation vents.
   D. Remove damaged insulation and fasteners, cant strips, blocking.
   E. Repair existing wood deck surface to provide smooth working surface for new roof system.

3.04 INSTALLATION
   A. Coordinate scope of this work with requirements for installation of new roofing system, refer to Section 07 54 13 for additional requirements.

3.05 PROTECTION

END OF SECTION
SECTION 07 25 11
SELF-ADHERED MEMBRANE FLASHINGS (SAM-FLASHING)

PART 1   GENERAL

1.01   SECTION INCLUDES
A. Self-adhered membrane flashing, strips. (SAM FLASHING)
B. Foil faced self-adhered membrane flashing, strips. (SAM FLASHING - FF)
C. High temperature self-adhered membrane flashing, strips. (SAM FLASHING - HT)
D. Through-wall self-adhered membrane flashing, strips. (SAM FLASHING - TW)
E. Accessories

1.02   REFERENCE STANDARDS

1.03   ADMINISTRATIVE REQUIREMENTS
A. See Section 01 30 00 - Administrative Requirements, for pre-installation meeting procedures.
B. Preinstallation Meeting: Conduct a preinstallation meeting at least one week prior to the start of the work of this section; require attendance by all affected installers.

1.04   SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data:
   1. Manufacturer's specifications and other data needed to show compliance with specified requirements.
2. Tested physical and performance properties of waterproofing, including compliance with limits on VOC emissions.
3. Manufacturer's installation instructions.
4. Product data sheets for products supplied under this Section including primers and accessory detailing compounds.

C. Shop Drawings:
1. Show locations and extent of membranes and membrane flashings.
2. Include details at penetrations, and termination conditions including at adjoining construction.

D. Test Reports:
1. Product test reports from an independent Testing Agency.

E. Certifications:
1. Installer certificate signed by manufacturer certifying installer has been trained and approved by manufacturer to install specified product.
2. Manufacturers Certificates indicating adhesive and chemical compatibility with adjacent and accessory products specified herein or in other Sections including but not limited to Sheathing, Pedestrian Traffic Coatings, and Joint Sealers.

1.05 QUALITY ASSURANCE

A. Installer:
1. Engage an applicator currently approved in writing by membrane manufacturer.
2. Membrane Manufacturer Qualifications: Company specializing in waterproofing self-adhered membranes with ten years experience.
3. Installer Qualifications: Company specializing in performing work of this Section with minimum five years experience and who has successfully completed a minimum of 3 projects of similar size, quality and complexity.
   a. Installer to be currently approved in writing by membrane manufacturer.
4. Coordinate as required with other trades interfacing with Work of this Section to ensure proper and adequate provision for preceding or sequential Work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to jobsite in manufacturer's original packaging, with labels intact and legible.

B. Storage:
1. Maintain packaging, seals and labels intact until time of use.
2. Store materials off ground and protected from damage, including that resulting from exposure to direct sunlight.
3. Store roll materials on end.

1.07 FIELD CONDITIONS

A. Do not install primer or membrane when temperature is below 41 degrees F.
   1. Use cold weather products when application is between 25 and 41 degrees F per manufacturer's written instructions.
2. Do not install product below 25 degrees F.

B. Do not install membrane in standing water, during wet or damp weather, or on wet, damp or frost covered substrates.

1.08 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a five year period after Date of Substantial Completion.

C. Special Manufacturer’s Warranty:
   1. Written warranty, signed by membrane manufacturer, agreeing to replace membrane material that does not comply with requirements or that does not remain water, air and vapor tight during specified warranty period.
   2. Warranty does not include failure of membrane due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in substrate exceeding 1/16 inch in width.

D. Special Installer’s Warranty: Written membrane Installer’s warranty, signed by Installer, covering Work of this Section, for warranty period of two (2) years.

PART 2 PRODUCTS

2.01 SYSTEM DESCRIPTION

A. Self-adhered membrane flashing to make exterior walls and joints between exterior walls water vapor-resistant and air-tight.
   1. Membrane to prevent passage of water, air infiltration, vapor diffusion and complies with requirements as demonstrated by mock-up testing by independent Testing Agency of manufacturer’s membrane.

B. Environmental Characteristics:
   1. Comply with State VOC requirements or no VOC content, no formaldehyde content, are water-based rather than solvent-based, and are certified to not off-gas.

2.02 MATERIALS

A. Self-Adhered Membrane Flashing (SAM FLASHING):
   1. Self-adhered membrane over exterior wall cavity sheathing opening penetrations and as indicated:
   2. General:
      a. HDPE faced, asphalt-butyl hybrid, self-adhesive membrane.
      b. Thickness: 40 mils, excludes removable release film protecting adhesive surface.
      c. Tested and shown to resist softening, flow, or deterioration of temperatures between 14 and 150 deg F.
   3. Products:
b. Tremco Product ExoAir 110AT; www.tremcosealants.com
c. Substitutions: See Section 01 60 00 - Product Requirements.

B. Foil-faced Self-Adhered Membrane (SAM FLASHING - FF):
1. Use where sealant required to adhere to membrane.
2. General:
   a. Aluminum foil-faced, butyl based rubberized, self-adhesive membrane.
   c. Tested and shown to resist softening, flow, or deterioration at temperatures up to 300 deg F.
   d. Apply single-component neutral-cure sealant 795 by Dow Corning at membrane terminations and where indicated.
3. Products:
   b. Tremco; Product: ExoAir 111AT; www.tremcosealants.com
   c. Substitutions: See Section 01 60 00 - Product Requirements.

C. High-temperature Self-Adhered Membrane Flashing (SAM FLASHING - HT):
1. Provide membrane flashing where sealant to membrane not required, under sheet metal flashings and copings, metal roofing and siding including mechanical penthouse siding and roof and as indicated:
2. General:
   b. Thickness: 45 mils minimum, excludes removable release film protecting adhesive surface.
   c. Tested and shown to resist softening, flow, or deterioration at temperatures up to 300 deg F.
3. Products:
   b. Tremco; Product: ExoAir 110AT; www.tremcosealants.com
   d. Substitutions: See Section 01 60 00 - Product Requirements.

D. Through-Wall Self-Adhered Membrane Flashing (SAM FLASHING - TW):
1. Cross-laminated high-density polyethylene (HDPE) film laminated to an aluminum foil facing, conforming to the following:
   a. Minimum thickness: 45 mils.
   c. Tensile strength: 400 psi when tested in accordance with ASTM D412.
   d. Peel strength: 40 psi when tested in accordance with ASTM D903.
E. Elastic Self-Adhered Membrane Flashing (SAM FLASHING - EL):

1. Elastic self-adhering flashing tape conforming to the following:
   a. Minimum thickness w/out liner: 38 mils.
   c. Tensile strength at break: 4.2 PSI when tested in accordance with ASTM D412.
   d. Elongation at break: > 300% when tested in accordance with ASTM D412.
   e. Nail Sealability: Passes ASTM E331.
   f. UV Exposure limit: 12 months.

2. Manufacturer:
   b. Substitutions: See Section 01 60 00 - Product Requirements.

G. Accessories:

1. Surface Conditioners/Primers: High-tack SBS rubber based primer or as recommended by manufacturer.
2. Fasteners: Stainless steel.
3. Detailing Compounds: Liquid membrane, 1 or 2 component sealants or mastics supplied by membrane manufacturer intended for detailing around penetrations and at lapped seams.

2.03 SEALANTS

A. Silicone Sealant: As specified in Section 07 92 00.
B. Sealant Backers: As specified in Section 07 92 00.

C. Primers, Cleaners, and Other Sealant Materials: As recommended by sealant manufacturer, appropriate to application, and compatible with adjacent materials.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Applicator to examine areas and conditions under which Work of this Section will be performed.
   1. Verify conformance with Manufacturers requirements.
   2. Report unsatisfactory conditions in writing to Architect.
   3. Do not proceed until unsatisfactory conditions are corrected.
      a. Coordinate with other trades to assure proper and adequate interface with Work of this Section.
      b. Verify items that penetrate sheathing surfaces are securely installed prior to membrane application.

**3.02 PREPARATION**

A. Protect adjacent surfaces not designated to receive membrane.

B. Do not apply membrane to surfaces unacceptable to manufacturer or applicator.

C. Surface Conditioner/Primer:
   1. Apply surface condition/primer to substrates and at rate recommended by manufacturer such that substrate is uniformly coated.
   2. Conditioner not be to applied so thick that it will run or puddle.
   3. Mask and protect adjoining exposed finish surfaces to protect from excessive application of surface conditioner.
   4. Allow surface conditioner to dry completely prior to installation of membrane.
   5. Cure time will vary with weather conditions.
      a. Do not apply surface conditioner to areas which will not be covered with membrane in same day.
      b. Reccoat areas not covered with membrane after twelve (12) hours or if contaminated by dust.

D. Detailing:
   1. Apply bed of detailing compound at perimeter conditions.
   2. Apply bed of detailing compound around penetrations, wall jacks.
   3. Install detail strips of membrane as indicated in Drawings or at opening penetrations or material transitions.
   4. Utilize hand roller to ensure full contact adhesion of membrane materials.
   5. Install flashings and sealants at opening penetrations as indicated in Drawings or as required by manufacturer.
   6. Apply sill drainage mesh under sill at flanged windows, cut to window width. Secure with sealant or staples.
3.03 INSTALLATION

A. Install system per manufacturer's written installation instructions, except where more rigorous requirements are contained herein.
   1. Roll out membrane. Discard wrinkled or bubbled material.
   2. Sequence membranes to allow tie-in to openings and transitions.

B. Lap each sheet or strip in watershedding manner with upper sheets over lapping lower sheets in horizontal fashion.

C. Sheets and strips to be rolled with hand roller to ensure complete and even adhesion. Air pockets, fishmouths or unadhered areas of membrane to be cut out and repaired.
   1. Provide 3 inch wide strips at furring.
   2. Provide 4 x 4 inch diamond patch at masonry ties.

D. Laps: Minimum of 2 inches, unless otherwise noted.
   1. Wipe down scrim material at each overlap area using two rag alcohol wipe method to remove dust or contaminants prior to installing successive sheets or strips.
   2. Roll each lap with hand roller to ensure full and complete adhesion.
   3. Detail each exposed edge with detailing compound within one day of installation.

E. Detail around clips and metal ties. Set clips and metal ties in full bed of detailing compound or 4 x 4 inch SAM patch.
   1. Membrane not to be exposed to ultraviolet light (sunlight) for longer than 30 days or as established in manufacturer's written literature, whichever is more stringent.

3.04 REPAIR

A. Where damaged, a repair patch of like membrane may be installed.
   1. Cut out damage membrane, clean scrim surface around patch area with a two rag alcohol wipe, and apply a patch of material extending six inches around edge of damaged area.
   2. Roll seams tight with a hand roller and detail edges with detailing compound.
   3. Seal leading edge of patch with mastic.

3.05 PROTECTION

A. Protect membrane from damage and wear during construction period.

B. Protect membrane from welding activities during construction period.

3.06 CLEANING

A. Clean spillage and soiling from adjacent construction. Remove from jobsite refuse and debris and dispose of per Section 01 74 19.

END OF SECTION
SECTION 07 54 13
THERMOPLASTIC MEMBRANE ROOFING (TPO)

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Fully adhered membrane roofing system.
B. Roof Vapor Retarder
C. Walkway pads.

1.02 REFERENCE STANDARDS
G. ASTM D1204 - Standard Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature; 2014.

1.03 ADMINISTRATIVE REQUIREMENTS
A. See Section 01 30 00 - Administrative Requirements, for pre-installation meeting procedures.
B. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.
   1. Agenda:
b. Review Factory Mutual and/or Underwriters Laboratories requirements, and resolve conflicts.
c. Review required submittals both completed and yet to be completed.
d. Review Drawings for location of differing membrane applications, roof slope, deck type, drainage, membrane attachment, expansion joints, flashing, details, and like.
   1) Resolve any conflicts between what is considered good roofing practice and Specifications.
e. Review proposed roofing system and recommended work practices for its installation.
f. Determine whether different roof areas have different requirements.
g. Review required inspection, testing, certifying and material usage accounting procedures.
h. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
   1) Designate which areas on site to be available for use as storage area and working area.
i. Review procedures to be followed to provide proper protection of roof system during and after construction of roof.
j. Review and finalize construction schedule related to roofing work and verify availability of materials, Installer's personnel, equipment and facilities needed to make progress and avoid delays.
k. Review notification procedures for weather or non-working days.
l. Record discussion of conference including decisions and agreements reached and furnish copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.

C. Scheduling:
   1. Sequence installation of roofing with related units of work specified in other sections to ensure that roof assemblies including roof accessories, flashing, trim and joint sealers are protected against damage from effects of weather, corrosion and adjacent construction activity.

1.04 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Membrane sheet layout, accessories, flashing and termination details.

C. Product Data:
   1. Product data sheets for each material required, including:
      a. Membrane.
      b. Membrane fasteners.
      c. Insulation.
      d. Insulation fasteners.
e. Metal accessories.
f. Caulks and sealants.
g. Unreinforced flashing material.
h. Preformed corners and boots.
i. Other required materials.

2. Manufacturer's standard details for each applicable project condition.

D. Assembly Data: Provide Stamped engineered calculations licensed in the State the project is located, indicating roof assembly meets higher of either, Building Code or Owner's building insurance required values for wind uplift.

E. Shop Drawings: Submit roof drawing indicating details to be employed in project.
   Include:
   1. Outline and size of roof.
   3. Location and type of penetrations.
   4. Perimeter and penetration flashing detail references.
   5. Complete drawings of non-manufacturer-standard details to be used, with details of construction.
   6. Indicate elevation changes in parapet walls, fire walls, adjacent roof areas, and similar roof geometry.
   7. Indicate joint or termination detail conditions, conditions of interface with other materials, setting plan for tapered insulation, mechanical fastener layout, and paver layout.

F. Test Report: Pull test results for lightweight cementitious deck; submit additional copy to manufacturer for evaluation.

G. Manufacturer's Installation Instructions: Indicate membrane seaming precautions, special procedures, and perimeter conditions requiring special attention.

H. Manufacturer’s Certificate: Certify that products meet or exceed specified requirements.
   1. Manufacturer’s written approval of this specification and of any proposed deviations from specification or drawings or previously approved details.
   2. Manufacturer's approval does not constitute a waiver of requirements of this specification or drawings or approval of deviations not specifically itemized.
   3. Do not proceed with such deviation without written approval of Architect.

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

J. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner’s name and registered with manufacturer.
   1. Completed request for warranty, by manufacturer-authorized installer, including following items.
      a. Samples and data sheets of materials not supplied or approved by manufacturer.
      b. Type and thickness of insulation.
      c. Shop drawings specified above.
1.05  QUALITY ASSURANCE

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

B. Roofing system warranty provided by Membrane Manufacture.

C. Manufacturer required to produce and supply membrane and accessories.

D. Applicator Qualifications: Company specializing in performing work of this section with minimum five years experience.
   1. Use an applicator currently approved in writing by Manufacturer of roofing system.
   2. Use skilled workers trained and experienced in crafts and familiar with requirements and methods needed for proper performance of Work.

E. Membrane manufacturer technical representative to make site inspections, before, during, and after installation of Work.
   1. Inspections to be performed and documented by designated and properly qualified technical representative of membrane manufacturer.
   2. Verify that materials and Work meet specified requirements.
   3. Should Work and/or materials not meet specified requirements, promptly advise Architect with recommended course of action.

1.06  PROJECT CONDITIONS

A. Coordinate work with installation of associated counterflashings installed by other sections as work of this section proceeds.

1.07  DELIVERY, STORAGE, AND HANDLING

A. Storage of Materials:
   1. Deliver insulation to job site in its manufacturer's original container, with labels intact and legible.
   2. Maintain packaging, seals and labels intact until time of use.
   3. Store roofing materials, including insulation, in a dry place, on raised platforms, and cover with waterproof tarpaulins, protected from sun and weather.
   4. Store solvents, sealants, and adhesives in a cool, dry area.
   5. Keep lids tightly sealed on sealants, solvents and adhesives.
   6. Do not overload roof structure by concentrating stored materials in certain locations.
   7. Store adhesives at temperature above 40 degrees F.

1.08  FIELD CONDITIONS

A. Do not apply roofing membrane or insulation during inclement weather or when ambient temperatures are below 50 degrees F, unless conditions are as recommended by Manufacturers printed instructions.

B. Do not apply roofing membrane to damp or frozen deck surface; do not begin work until surfaces are sufficiently dry to receive new work.

C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be rendered watertight during same day.
D. Refrain from roofing operations when wind velocity is sufficiently high to lift roofing membrane sheets and pose a danger to workers.

1.09 MANUFACTURER’S INSPECTIONS

A. Roofing System Manufacturer to provide following:
   1. Keep Architect informed as to progress and quality of work as observed.
   2. Provide job site inspections a minimum of three days a week.
   3. Report to Architect in writing any failure or refusal of Contractor to correct unacceptable practices called to Contractor’s attention.
   4. Confirm after completion of project and based on manufacturer’s observation and tests that manufacturer has observed no applications procedures in conflict with specifications other than those that may have been previously reported and corrected.

1.10 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

B. Manufacturer:
   1. Total system and no dollar limit to include membrane, insulation and flashing covering Fifteen (15) years: Defective materials, installation and watertight integrity of roofing system.
      a. No exclusions for ponded water.

C. Installer: 2 years defective materials and installation, including any resulting damage to building materials and/or building contents.

PART 2 PRODUCTS

2.01 MANUFACTURER


2.02 PERFORMANCE REQUIREMENTS

A. Installed roofing membrane and base flashings to remain watertight, resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.

B. UL (FRD), Class A for Roofing System.

C. Wind resistance to meet:
   2. Wind Design Criteria: 100 mph, Exposure B.

2.03 MATERIALS

1. Sheet Width: 120 inches minimum.
2. Thickness: 0.080, nominal, when measured in accordance with ASTM D751.
   a. Minimum weather surface thickness: 15 mils.
4. Breaking Strength: 366 lbf, when tested in accordance with ASTM D751, Grab Method.
6. Tear strength (ASTM D751, Procedure B), 8 x 8 inch sample: 86 lbf
8. Dimensional stability, percent change max. (ASTM D1204 B: 1 hr at 212 deg F, W: 6 hrs at 176 deg F): Black plus/minus 0.5 percent; white plus/minus 0.3 percent.
10. Water absorption (ASTM D471) 158 degrees F for 7 days: Plus 2.0 percent maximum weight change
11. Ozone resistance of unreinforced membrane: No cracking when tested in accordance with ASTM D1149, for 70 hr at 100 degrees F.
13. Heat aging (ASTM D573), 28 days at 212 degrees F: Break at 225 lbf; elongation of 500 percent.

B. TPO - Vapor Retarder: Polyimide film vapor retarder for use with unfaced, vapor permeable glass fiber and mineral wool insulation in ceiling cavities.
   1. Location: As indicated on drawings.
   2. Water Vapor Permeance:
      a. ASTM E 96, dry cup method: 1.0 perms.
      b. ASTM E 96, wet cup method: 10.0 perms.
   3. Fire Hazard Classification: ASTM E 84:
      a. Maximum Flame Spread Index; 25.
      b. Maximum Smoke Developed Index; 450.
   4. Manufacturers:
      b. Substitutions: See Section 01600 - Product Requirements.

C. Adhesives:
   1. Insulation and Protection Assembly:
      a. Manufacturer's standard
   2. Membrane: Manufacturer's standard

D. Accessories: Single source products as required by Manufacturer.

E. Coated Sheet Metal: Flexible non-reinforced thermoplastic polyolefin membrane factory laminated to hot dipped galvanized steel, G-90.
   1. Type: Manufacturer's standard
   2. Gauge: 24

F. Flashing: Same membrane as specified above.
1. Vent stacks, pipes, drains, and corners: Prefabricated pipe boots and inside and outside corners provided by manufacturer.
2. Field-fabricated flashing for vent stacks, pipes, drains, and corners: 0.055 inch thick, ethylene-propylene-based membrane.
3. Exception: Perimeter gravel stops and drip edges, use manufacturer provided coated metal.

G. Roof Walkways: Manufacturer’s standard.

H. Sealants:
   1. All-Purpose Sealant: Water cut-off mastic, pitch-box sealer, and to seal membrane to metal. Type approved by manufacturer.
   2. Cut-Edge Sealant: Seal exposed cut edges of reinforced membrane. Type approved by manufacturer.

I. Seam Cleaner: Remove contaminants from surface of membrane where hot-air welding is to occur. Type approved by manufacturer for application.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions under which work of this Section will be performed.
   1. Correct conditions detrimental to timely and proper completion of Work.
   2. Do not proceed until unsatisfactory conditions are corrected.

B. Verification of Conditions:
   1. Layout: Verify layout of work before beginning installation.
   2. Existing conditions: Examine substrate before beginning installation.
      a. Examine surfaces for inadequate anchorage, drainage, foreign material, moisture and unevenness which would prevent execution and quality for application of roofing system as specified.
   3. Verify work of other trades which penetrates roof deck has been completed.
   4. Verify that positive roof slope exists in areas.
   5. Verify that rooftop mechanical units are to have their condensation lines piped to drains or off roof surface.
   6. Block off or shut down positive pressure building ventilation systems during application to prevent sheet from billowing during application.
   7. Concrete: Verify that concrete is dry, fully cured, and prepared smooth with dust removed. Where deck joints exceed 1/4 inch width and at building expansion joints, provide fastened membrane expansion joint detail.

3.02 COORDINATION

A. Coordinate Work of this Section with Work of other Sections.
   1. Verify placement of drain pan linings, and like; coordinate roof penetrations, equipment bases and other conditions as required.
   2. Reset roof drains or scuppers that are not at proper level to drain finished roof before proceeding.
3.03 PROTECTION OF PROPERTY

A. Protect finished surfaces of building from damage by installation of roofing system.
   1. Protect completed roofing and flashings from damage by subsequent roofing installation and construction traffic.

B. Protective Coverings:
   1. Lap protective coverings at least 6 inches, secure against wind, and vent to prevent collection of moisture on covered surfaces.
   2. Keep protective coverings in place for duration of roofing work.
   3. Damaged Work and Materials: Restore work and materials damaged during installation to original condition or replace with new materials.

3.04 FASTENERS - GENERAL

A. Install fasteners with a depth-sensing screw gun to prevent overdriving or underdriving, unless otherwise approved or required by project conditions.

3.05 INSTALLATION

A. Install Work of this Section in accordance with:
   1. Construction documents
   2. Reviewed shop drawings
   3. Procedures, as required or recommended by roofing materials manufacturers, regulations of governmental agencies having jurisdiction, Specifications, and as agreed to in pre-roofing meeting.

B. Surface: Dry and broom clean before beginning work, completely free of ice or frost.

C. Install continuous fire retardant wood nailers at gravel stop or drip edge locations and parapets.

D. Roofing Membrane:
   1. Do not undertake application of more roof insulation and roofing each day than can be completed within same day.
   2. At end of each day's work, protect installed roofing and insulation by closing off edge of roofing system.
   3. Remove water cut-off completely and clean prior to resuming roofing application.
   4. Fully adhere membrane and hot-air weld seams per manufacturer's instructions.

E. Provide flashing at intersections formed by vertical surfaces, and wherever curbed roof openings, wall, parapets, or other structure join or penetrate roof.
   1. Install in accordance with roofing manufacturer's specifications.

F. Install roof walk at locations shown in accordance with manufacturer's recommendations.
   1. Provide starting from roof access hatch or door and reaching roof-mounted equipment requiring periodic service or monitoring, including around perimeter of such equipment.
3.06 FABRICATION

A. Conform to SMACNA (ASMM) CDACDA that apply to design, details, dimensions, geometry, metal thickness, and other characteristics of items indicated or as recommended by roofing manufacturer for warranty.

B. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.

C. Apply plastic cement compound between metal flashings and felt flashings as recommended by manufacturer.

D. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.

3.07 FIELD QUALITY CONTROL

A. Owner will provide testing services in accordance with Section 01 40 00 - Quality Requirements. Contractor shall provide temporary construction and materials for testing.

B. Manufacturer Quality Control:
   1. Technical representative of manufacturer to periodically (minimum 3 visits) observe Work in progress.
   2. Representative, as a minimum, to be present to observe deck preparation, general installation procedures and final completion.
   3. Notify Architect and Owner's Representative at least twenty-four (24) hours prior to any roofing Work.
   4. Work not to proceed until such observations have been made in field report and conditions have been approved in writing by Architect.
   5. Upon completion of installation to ascertain that entire systems has been installed according to manufacturer's specifications and approved details.

3.08 WARRANTY REINSPECTION

A. Two (2) months before expiration of warranty, reinspect work and make necessary repairs at no additional cost to Owner.

3.09 CLEANING

A. Clean adjacent materials and surfaces of any soilage by Work of this Section, and repair as necessary.

B. Upon completion of work of this Section, promptly remove from job-site debris, empty containers, and surplus materials derived from this portion of Work, and dispose of in a legal manner.

END OF SECTION
SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, exterior penetrations, and other items indicated in Schedule.
B. Sealants for joints within sheet metal fabrications.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
C. Samples: Submit two samples, 12 by 12 inch in size illustrating material of typical standing seam.
D. Samples: Submit two samples 21 by 12 inch in size illustrating metal finish color.

E. Test Data: Provide test data for roof edge and coping attachment meeting: ANSI/SPRI/FM 4435/ES-1, RE-3 requirements.

1.04 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise indicated.

B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.


1.05 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

1.06 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a two year period after Date of Substantial Completion. Defective work includes degradation of metal finish and failure of watertightness or seals.

1. Repair and/or replace without additional cost to Owner any water leaks and resulting damage to building materials as may occur under normal usage within warranty period.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

A. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24 gage, (0.0239) inch thick base metal, shop pre-coated with PVDF coating.

1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.

2. Color: As selected by Architect from manufacturer's standard colors.

B. Lead: ASTM B 749, 4 lb/sq ft thick.

2.02 PERFORMANCE REQUIREMENTS

A. Parapet Fascias and Copings: Minimum gage metals, fastener size and spacing to resist wind uplift as noted on Structural Drawings per ANSI SPRI ES-1.

2.03 FABRICATION

A. Field verify dimensions prior to fabrication.

B. Form sections true to shape, accurate in size, square, and free from distortion or defects.
1. Angle bottom edges of vertical surfaces to form drip.

C. Fabricate cleats of same material as sheet, interlocking with sheet.
   1. Gage: One gage heavier than sheet metal component being anchored.
   2. Continuous cleat at outside face of coping.
   3. Spaced cleats: Two (2) feet on center at inside of coping, minimum 4 inches wide.

D. Form pieces in longest possible lengths.

E. Hem exposed edges on underside 1/2 inch; miter and seam corners.

F. Form material with standing seams, except where otherwise indicated. At moving joints, use standing seam.
   1. Counter flashing: Double S Lock.

G. Seams:
   1. Standing seams: 1 inch high, with sealant at folded corners.
   2. Solder-Lap Seams: 1 inch finish width; sweat full with solder.
   3. Double S Lock Seams: Form 1-1/4 inch wide S shaped seam on each edge of flashing sheet for concealed fastening.
   4. Splice Plates: 12 inch long backing plate with 2 sealants beads each side of joint. No lapped joints permitted.

H. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.

I. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges.

J. Sheet Metal Pipe Boot:
   1. Pipe and Penetration Flashing: Two piece interlocking of galvanized steel, compatible with pipe, membrane flashing and roof systems, and capable of accommodating pipes sized between 3/8 inch and 12 inch.
      a. Caps: EPDM.
      b. Metal Thickness: 22 gauge.
      c. Profile: As indicated on drawings.

K. Gauges: See 3.13 Schedule.

L. Sill Flashings:
   1. Form as detailed.
   2. Provide end dams and back leg dams on horizontal flashings.
   3. Butt Joints: over lap 12 inches and apply 2 beads of sealant at each joint (4 total).

M. Scuppers:
   1. Form as detailed.
   2. Lap field joints at conductor heads, and solder.
   3. Scupper Flange: Lead, soldered to interior face of scupper.
   4. Install sealant around exposed flanges on roof side.

N. Manufactured Scupper Spout:
2. Downspout Nozzle #1770, cast bronze body and flange.
3. Location: As indicated on drawings.

### 2.04 GUTTER AND DOWNSPOUT FABRICATION

A. Downspouts: Square profile.

B. Accessories: Profiled to suit gutters and downspouts.
   1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
   2. Downspout Supports: Brackets.

C. Washers: Neoprene cadmium plated.

D. Downspout Extenders: Same material and finish as downspouts.

E. Seal metal joints.

### 2.05 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

B. Rivets: Stainless steel, 1/8 inch diameter minimum

C. Screws: Self-tapping, stainless steel, pan head No. 7 x 1 inch minimum.

D. Self-Adhered Membrane Flashings: See Section 07 25 11 for high temperature membrane flashing under metal flashing.

E. Primer: Zinc chromate type.

F. Concealed Sealants: Non-curing butyl sealant.

G. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.

H. Sealant: Gutter seal by Alcoa.

I. Plastic Cement: ASTM D4586/D4586M, Type I.

J. Reglets: Surface mounted type, galvanized steel; face and ends covered with plastic tape.

K. Solder: ASTM B32; Sn50 (50/50) type.

L. Insect Baffle:
   2. Manufacturer:
      b. Substitutions: See Section 01 60 00 - Product Requirements.

M. Flashing Panels: Premanufactured panels for integration with building weather barrier system, specified elsewhere, where items are required to penetrate the weather barrier and require an air and watertight seal
   1. Plumbing Flashing Panels:
a. Panel: Combination HDPE and LDPE meeting the following minimum requirements:
   1) HDPE Tensile strength at yield per ASTM D638: 3,100 psi
   2) LDPE Tensile strength at yield per ASTM D638: 1,300 psi
b. Weatherproof Seal: Thermoplastic elastomer.
   1) Hardness, ASTM D2240, Shore A, 10 seconds: 46
   2) Tensile strength, ASTM D412, 490 psi

2. Types as to fit application.
   a. Mechanical and Plumbing Flashing Panels:
      1) Materials: Combination of high-density polyethylene (HDPE) and low-density polyethylene (LDPE).
   b. Electrical Flashing Panels:
      1) Material: Thermoplastic elastomer.
         (a) Hardness, ASTM D2240, Shore A, 10 seconds: 93
         (b) Tensile strength, ASTM D412, 1,300 psi

3. Manufacturer:
   b. Substitutions: See Section 01 60 00 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
   B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION
   A. Install starter and edge strips, and cleats before starting installation.
   B. Install surface mounted reglets true to lines and levels, and seal top of reglets with sealant.
   C. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION, GENERAL
   A. Install work of this Section in accordance with:
      1. Construction Documents.
      2. Reviewed Shop Drawings
      3. Anchor components firmly into position plumb, level and true.
   B. Install Work watertight and weathertight, without oil canning, buckles, tool marks, fastening stresses, distortion, or defects which impair strength or mar appearance.
   C. Install planes and lines in true alignment.
   D. Allow for sheet metal expansion and contraction.
1. Provide expansion 40 feet o.c. maximum unless otherwise noted.

3.04 INSTALLATION

A. Insert flashings into reglets to form tight fit; secure in place with lead wedges; pack remaining spaces with lead wool; seal flashings into reglets with sealant.

B. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.

C. Apply plastic cement compound between metal flashings and felt flashings.

D. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

E. Sealant Installation:
   1. Apply 1/4 inch diameter bead, centered in full length of joints.

F. Soldering:
   1. Clean and flux metals prior to soldering.
   2. Solder metal joints for full metal surface contact, and after soldering wash metal clean with neutralizing solution and rinse with water.
   3. Perform soldering with a heavy soldering copper of blunt design, properly tinned for use.
      a. Perform soldering slowly, with a well heated surface and fill with solder.
   4. Do not solder coil-coated galvanized sheet steel.

G. Secure gutters and downspouts in place with concealed fasteners.

H. Connect downspouts to downspout boots, and seal connection watertight.

I. Cover fastener heads with cleat tabs folded back over fastener head.

J. Spaced cleats: Two (2) feet on center at inside of coping

K. Set splash pads under downspouts.

3.05 CLEAT INSTALLATION

A. Secure spaced cleats to substrate with 2 fasteners to prevent cleat rotation.

B. Secure continuous cleats to substrate with fasteners spaced at 12 inch maximum centers.

C. Cover fastener heads with cleat tabs folded back over fastener head.

3.06 CORROSION PROTECTION

A. Protect galvanized steel against corrosion with asphaltic coating compound; 7-1/2 mil dry film thickness applied to each contacting face.

3.07 COUNTER FLASHING

A. Overlap base flashing 4 inches minimum.

B. Install bottom edge spring-tight against base flashing.
C. Miter, and seal corner joints.

3.08 COPINGS
A. Fabricate with standing seams spaces approximately 10 feet apart.
B. Miter and join corners.
C. Lock exterior edges over continuous cleats secured to substrate.
D. Slope coping top toward roof.

3.09 ASPHALT PLASTIC CEMENT INSTALLATION
A. Trowel apply 1/8 inch thick. See roofing Section for materials.

3.10 ROOF PENETRATION FLASHING
A. General: Form of 4.0 lb/sq. ft. lead, hard tempered.
B. Flashing: Seal top of flashing to pipes penetrating roof as detailed or recommended by roofing manufacturer.
C. Storm Collar:
   1. Overlap base lead at least 1 inch with 24 gage prefinished metal storm collar sloped away from penetration.
   2. Secure to penetration with clamp and seal as detailed.

3.11 FLASHING PANEL INSTALLATION
A. Complete all soldering, welding and other heat producing work prior to installation of flashing panels.
B. Install panels in accordance with manufacturers printed instructions.
C. Integrate with building weather and air barrier system to maintain integrity of the system
D. Protect flashing panels from damage during construction

3.12 FIELD QUALITY CONTROL
A. See Section 01 40 00 - Quality Requirements, for field inspection requirements.
B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.13 CLEANING
A. As Work progresses, neutralize excess flux with 5 percent to 10 percent washing soda solution, and thoroughly rinse.
B. Clean exposed surfaces affected by Work of this Section.
C. Remove from site refuse created by this work, and dispose of in a legal manner.
3.14 SCHEDULE

A. Through-Wall Flashing in Masonry: Stainless Steel, 22 gauge (0.0299 inch thick).
B. Sill and Ledge Flashings: Stainless Steel; 22 gauge (0.0299 inch thick).
C. Coping, Cap, and Parapet: Pre-finished galvanized steel; 22 gauge (0.0299 inch thick).
D. Sheet Metal Roof Expansion Joint Covers, and Roof-to-Wall Joint Covers: Pre-finished galvanized steel; 22 gauge (0.0299 inch thick).
E. Roof Drains: Lead, 4.0 lb/sq. ft., hard tempered.
F. Eave Flashing: Pre-finished galvanized steel; 24 gauge (0.0239 inch thick).
G. Fascia and Cornices: 20 gauge (0.0359 inch thick).
H. Gutters and Downspouts: 22 gauge (0.0299 inch thick)
I. Counterflashings at Roofing Terminations (over roofing base flashings):
J. Flashing Panels at plumbing penetrations:
K. Flashing Panels at electrical penetrations:

END OF SECTION
SECTION 07 92 00
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Nonsag gunnable joint sealants.
B. Self-leveling pourable joint sealants.
C. Joint backings and accessories.

1.02 REFERENCE STANDARDS

1.03 ADMINISTRATIVE REQUIREMENTS
A. See Section 01 30 00 - Administrative Requirements, for pre-installation meeting procedures.
B. Convene two weeks before starting work of this section.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
   1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
   2. List of backing materials approved for use with the specific product.
   3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
   4. Substrates the product should not be used on.
   5. Substrates for which use of primer is required.
C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
D. Field Quality Control Plan: Submit at least two weeks prior to start of installation.
E. Field Quality Control Log: Submit filled out log for each length or instance of sealant installed, within 10 days after completion of inspections/tests; include bagged test samples and photographic records, if any.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

C. Field Quality Control Plan:
   1. Visual inspection of entire length of sealant joints.
   2. Destructive field adhesion testing of sealant joints, except interior acrylic latex sealant.
      a. For each different sealant and substrate combination, allow for one test every 100 feet in the first 1000 linear feet, and one test per 1000 linear feet thereafter, or once per floor on each elevation.
      b. If any failures occur in the first 1000 linear feet, continue testing at frequency of one test per 500 linear feet at no extra cost to Owner.
   3. Field testing agency's qualifications.
   4. Field Quality Control Log Form: Show same data fields as on Preinstallation Field Adhesion Test Log, with known information filled out and lines for multiple tests per sealant/substrate combinations; include visual inspection and specified field testing; allow for possibility that more tests than minimum specified may be necessary.

D. Field Adhesion Test Procedures:
   1. Allow sealants to fully cure as recommended by manufacturer before testing.
   2. Have a copy of the test method document available during tests.
   3. Record the type of failure that occurred, other information required by test method, and the information required on the Field Quality Control Log.
   4. If any combination of sealant type and substrate does not show evidence of minimum adhesion or shows cohesion failure before minimum adhesion, report results to Architect.

E. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or other applicable method as recommended by manufacturer.

PART 2 PRODUCTS

2.01 JOINT SEALANT APPLICATIONS

A. Scope:
   1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
      a. Wall expansion and control joints.
b. Joints between door, window, and other frames and adjacent construction.  
c. Joints between different exposed materials.  
d. Openings below ledge angles in masonry.  
e. Other joints indicated below.  

2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.  
   a. Joints between door, window, and other frames and adjacent construction.  
   b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.  
   c. Other joints indicated below.  

3. Do not seal the following types of joints.  
   a. Intentional weepholes in masonry.  
   b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.  
   c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.  
   d. Joints where installation of sealant is specified in another section.  
   e. Joints between suspended panel ceilings/grid and walls.  

B. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-rated", or "acoustical".  

2.02 JOINT SEALANTS - GENERAL  
A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.  

2.03 NONSAG JOINT SEALANTS  
A. Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.  
   1. Applications: Use for:  
      a. Joints between metal frames and other materials, including storefront systems.  
      b. Joints using fluid applied weather barrier flashing.  
   2. Movement Capability: Plus 100 percent, minus 50 percent, minimum.  
   3. Color: To be selected by Architect from manufacturer’s custom range.  
   4. Manufacturers:  
      c. Substitutions: See Section 01 60 00 - Product Requirements.  

B. Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.  
   1. Applications: Use for:  
      a. Joints between metal frames and other materials, including storefront systems.  
      b. Joints using fluid applied weather barrier flashing.
3. Color: To be selected by Architect from manufacturer’s custom range.
4. Manufacturers:
   c. Substitutions: See Section 01 60 00 - Product Requirements.

C. Interior Concealed Perimeter Sealant: Silicone; ASTM C 920, Type S, Grade NS, uses NT, G, M, A and O; single component.
   1. Applications: Use for:
      a. Concealed Joints between door/windows and adjacent materials.
      b. Concealed Joints between metal frames and other materials.
   3. Products:
      b. Substitutions: See Section 01 60 00 - Product Requirements.

D. Acoustical Sealant for Concealed Locations:
   1. Applications: Use for concealed locations only:
      a. Sealant bead between top stud runner and structure and between bottom stud track and floor.
   2. Exposed and Concealed Joints:
      b. Pecora; AC-20 FTR Acoustical Sealant: www.pecora.com
      d. Substitutions: See Section 01 60 00 - Product Requirements.
   3. Concealed Joints:
      a. Pecora; AIS-919 Acoustical Sealant for non-rated assemblies or AC-20 FTR Acoustical Sealant for rated assemblies: www.pecora.com
      c. Substitutions: See Section 01 60 00 - Product Requirements.

2.04 ACCESSORIES

A. Silicone Strips: Extruded elastomeric silicone profile.
   1. Extruded low modules elastomeric silicone:
      a. Tensile Strength: 400 psi per ASTM D412.
      b. Elongation: 400 percent per ASTM D412.
   2. Width: 4 inches.
   3. Application Between glazing pocket at Curtain Wall framing and rough opening.
   4. Color: [White]
   5. Products:

B. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
1. Bi-Cellular: Polyethylene foam rod, 25 to 33 percent larger in diameter than joint width.

2. Manufacturers:
   a. Bi-Cellular:
      1) Backer Rod Mfg, Inc.; Titan Foam.
   b. Substitutions: See Section 01 60 00 - Product Requirements.

C. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

D. Joint Protection:
   1. Manufacturer: Weathercap, Inc.
      b. Profile: Type A.

E. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

F. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

G. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.

H. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that joints are ready to receive work.

B. Verify that backing materials are compatible with sealants.

C. Verify that backer rods are of the correct size.

3.02 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

E. Concrete and Masonry:
   1. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, or mechanical abrading; remove loose particles from cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
   2. Where surfaces have been treated, remove surface treatment by sandblasting or wire brushing.
   3. Remove laitance and mortar from masonry joint cavities
4. Remove laitance and form-release agents from concrete.

F. Metal surfaces:
   1. Clean steel surfaces with metal or wire brush to remove mill scale and rust.
      a. Prime surfaces as recommended by manufacturer.
   2. Clean nonporous surfaces with chemical cleaner which leaves no residue to remove oil and grease, and protective coatings, wiping surfaces with clean rags.

G. Protect elements surrounding the work of this section from damage or disfigurement.
   1. Use tape or other materials recommended by manufacturer to prevent contact of sealant with adjoining surfaces that would otherwise be permanently stained or damaged by such contact or by cleaning methods to remove sealant smears.
   2. Concrete sealed with water repellent. Protect joints prior to applying sealer or apply sealer after sealant is installed and cured.

H. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

**3.03 INSTALLATION**

A. Prepare Job Site Daily Log Reports.

B. Perform work in accordance with sealant manufacturer’s requirements for preparation of surfaces and material installation instructions.

C. Perform installation in accordance with ASTM C1193.

D. Perform acoustical sealant application work in accordance with ASTM C919.

E. Sealant Backings:
   1. Install material to uniform depth below sealant.
   2. Using tool, smoothly and uniformly place backup material to depth of approximately 1/2 joint width (1/4 inch minimum), compressing backup material 25 percent to 50 percent and securing a positive fit.
   3. Do not leave gaps between ends of sealant backings.
   4. Do not stretch, twist, puncture, or tear sealant backings.

F. Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
   2. Neck dimension no greater than 1/3 of the joint width.
   3. Surface bond area on each side not less than 75 percent of joint width.

G. Install bond breaker backing tape where backer rod cannot be used.

H. Primers: Use primer approved by manufacturer for substrates being sealed, in accordance with manufacturer’s recommendations.

I. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
J. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.

K. Mask joints where appearance of primer or sealant on adjacent surfaces would be objectionable.
   1. Provide dams where necessary to contain sealant.
   2. Remove masking tape immediately after tooling without disturbing joint seal.

L. Tool joints concave.
   1. Provide uniformly smooth joints with slightly concave surface, flush at edges with adjacent surface, according to ASTM C 1193, unless otherwise indicated.
   2. Do not use tooling agent unless specifically recommended in writing by sealant manufacturer.
   3. Leave sealant surface neat and smooth.

M. Apply two (2) beads of acoustical sealant to bottom of track.

3.04 FIELD QUALITY CONTROL

A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.
   1. Contractor to perform testing.

B. Destructive Adhesion Testing: If there are any failures in first 1000 linear feet, notify Architect immediately.
   1. Attendees for test meeting:
      a. Sealant manufactures technical representative.
      b. Contractor
      c. Installer
      d. Architect
   2. Initial Performance Testing:
      a. Minimum four (4) locations and minimum two (2) at window perimeters in accordance with ASTM C1193 and as determined by Architect.
         1) Prepare substrate surface for sealant application.
         2) Install sealant joint.
         3) Allow proper sealant cure time.
         4) Knife cut across sealant joint and two inches along each side of joint.
         5) Pull sealant out of joint at angle less than 90 degrees from cut piece and joint.
   3. Follow-up Testing:
      a. First 1000 Linear Feet: One test every 100 linear feet as soon as sealant is cured.
      b. After first 1000 linear feet, if good results occur in first 1000 linear feet.
         1) One test per 1000 linear feet.
         2) One test per floor per elevation.
         3) One test per week per installation crew.
4. Testing Documentation:
   a. Date and location.
   b. Installed age of sealant.
   c. Test result, sealant failure type and degree of force (much or little).
   d. Dimension of bead configuration.

5. Test Success: Sealant separates from itself, cohesive failure, adhering to substrate and failing in bond to itself.

6. Test Failure: Sealants from substrate, failing in bond to substrate, adhesive failure.
   a. Repair field adhesion tests immediately after determining and documenting results.

   C. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

   D. Repair destructive test location damage immediately after evaluation and recording of results.

   END OF SECTION