PROJECT MANUAL

SEYMOUR TOWN BUILDING RENOVATIONS

TOWN HALL
One First Street
Seymour, CT 06483

LIBRARY
46 Church Street
Seymour, CT 06483

POLICE STATION
11 Franklin Street
Seymour, CT 06483

Architect
Ames & Whitaker Architects, PC
31 Liberty Street, Suite 208
Southington, CT 06489

Civil/Structural/Mechanical/Electrical
Loureiro Engineering Associates, Inc.
100 Northwest Drive
Plainville, CT 06062

Volume 1

AMES & WHITAKER Architects
MEMBERS OF THE AMERICAN INSTITUTE OF ARCHITECTS

MEP CONSULTANT:
Loureiro
Engineering • Construction • EH&S • Energy • Waste

Project No. 2017.04
Date: February 8, 2018

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

BIDDING INFORMATION
- Invitation to Bid
- Bid Proposal Form
- Instructions to Bidders-AIA Document A701-1997
- Commission on Human Rights and Opportunities (CHRO) Contract Compliance Regulations Notifications to Bidders Form
- Sample Bid Bond-AIA Document A310
- Sample Performance Bond Form-AIA Document A312
- Sample Payment Bond Form-AIA Document A312
- Connecticut Prevailing Wage Rates

CONTRACT INFORMATION
- Sample-Standard Form of Agreement between Owner and Contractor where the basis of payment is a Stipulated Sum-AIA Document A101 – 2017
- General Conditions of the Contract for Construction-AIA Document A201– 2007
- Supplementary General Conditions
- Sample Payment Form-AIA Document G702 *Application and Certificate of Payment*
- Sample Payment Form-Connecticut Department of Labor Certified Payroll Form WWS-CPI

DRAWING LIST

---	Cover Sheet
Town Hall	
AT101	Town Hall Floor Plans
AT102	Town Hall Floor Plans
AT201	Town Hall Elevations
AT202	Town Hall Detail Entrance Elevations
AT501	Town Hall Type A Window Details
AT502	Town Hall Type B Window Details
AT503	Town Hall Type C Window Details
AT504	Town Hall Types D & F Window Details
AT505	Town Hall Type E Window Details
AT506	Town Hall Type E1 & G Window Details
AT507	Town Hall Type H Window Details
AT508	Town Hall Main Entrance Details
AT509	Town Hall HDCP Entrance Details
AT510	Town Hall North Entrance Details
AT601	Town Hall Window Schedule & Window Elevations
AT602	Town Hall Window Schedule & Window Elevations
MT001	Town Hall Mechanical Details and Schedules
MT100	Town Hall Mechanical Demo Plans
MT101	Town Hall Mechanical Plans
MT102	Town Hall Mechanical Part Plans
MT103	Heat Pump Diagram and Sequence of Operation
MT104	RTU Diagram and Sequence of Operation
ET100	Town Hall Electrical Demo Plans
ET101	Town Hall Electrical Floor Plans
Library	
AL101	Library Floor Plans
AL102	Library Reflected Ceiling Plans
AL201	Library Elevations

AL202 Library Elevations
AL401 Library Stair Detail Plans
AL402 Library Exit Door Details
AL403 Library Exterior Door Details
AL404 Library Alternate 1&2 Fire Glass Doors & Windows
AL501 Library Window Details
AL601 Library Window Schedule & Window Elevations
SDL100 Library Site Drainage Plan
DL100 Library Lower Level Mechanical Demolition Plans
DL101 Library Lower Level Electrical Demolition Plans
ML001 Library Mechanical Schedules and Details
ML100 Library Lower Level Mechanical Plan
ML101 Library Mechanical Part Plans
EL001 General Electrical Notes and Symbols
EL100 Library Lower Level Electrical Plan
EL101 Library Electrical Part Plan
EL102 Library Lower Level Lighting Plan
EL103 Library First Level Lighting Plan

Police Department

AP101 Police Department Basement Floor Plan
AP102 Police Department Partial Roof Plans
AP201 Police Department South & East Elevations
AP202 Police Department North & West Elevations
AP301 Police Department Attic Section/ Elevations
AP401 Police Department Roof Details
SIP100 Police Department Site Demolition Plan
SIP101 Police Department Underdrain and Rain Leader Drainage Plan
SIP102 Police Department Site Improvement Plan
SIP103 Police Department Site Improvement Details
SP100 Police Department Wall Sections
MP001 Police Department Mechanical Details and Schedules
MP100 Police Department Basement Mechanical Plan
MP101 Police Department First Floor Mechanical Plan
MP102 Police Department Second Floor Mechanical Plan
MP103 Police Department Roof Mechanical Plan
MP104 VAV Control Diagram and Sequence of Operation
MP105 RTU-1 Control Diagram & Sequence of Operation
MP106 RTU-2 Control Diagram & Sequence of Operation
MP107 Boiler Control Diagram & Sequence of Operation
MP108 EF Control Diagram & Sequence of Operation
EP100 Police Department Basement Electrical Plan
EP101 Police Department First Floor Electrical Plan
EP102 Police Department Second Floor Electrical Plan

SPECIFICATIONS

DIVISION 1 GENERAL REQUIREMENTS
010100 Summary of Work
010150 Contractors' Use of Premises
010160 Occupancy
010200 Overtime

010250 Applications for Payment
010350 Modification Procedures
010400 Coordination
010450 Cutting and Patching
010500 Field Engineering
010900 Standards, Codes and Specifications
011200 Renovation/Demolition Project Procedures for Hazardous Materials
012100 Preconstruction Conference
012200 Project Meetings
013400 Shop Drawings
013410 Samples
014000 Quality Control and Testing
015110 Temporary Electricity and Lighting
015130 Temporary Heating
015140 Temporary Telephone
015150 Temporary Water
015160 Temporary Sanitary Facilities
015180 Fire Protection
015200 Construction Equipment
015300 Barriers and Enclosures
015350 Protection
015400 Security
015500 Traffic Ways
015690 Cleaning
015900 Field Offices and Sheds
016000 Materials and Equipment
016100 Transportation and Handling
016200 Product Substitutions
017000 Project Closeout
017100 Project Record Documents
017200 Warranties
018000 Project Sign

DIVISION 2 EXISTING CONDITIONS-HAZARDOUS MATERIALS

HAZARDOUS MATERIALS ABATEMENT

Hazardous materials inspections, lab reports and specifications have been provided by Facility Support Services (2685 State Street, Hamden CT, 06517, 203-288-1281) under a separate contract. Their specifications are included in this manual for convenience to Contractor. Abatement is part of this Contract. Inspection and lab reports are available from the Town of Seymour upon request.

TOWN HALL ASBESTOS ABATEMENT-Exterior Caulking

DIVISION I
01010 General Requirements
01016 Scheduling and Phasing
01026 Unit Prices
01700 Contract Closeout

DIVISION II
02080 Asbestos Abatement

TOWN HALL PCB REMOVAL WORK PLAN-Foundation Flashing

LIBRARY ASBESTOS ABATEMENT0-Exterior Caulking, interior Floor Tiles

DIVISION I
01010 General Requirements
01016 Scheduling and Phasing
01026 Unit Prices
01700 Contract Closeout

DIVISION II
02080 Asbestos Abatement

LIBRARY PCB REMOVAL WORK PLAN-Entrance Floor Mat & Felt, Cove Base Mastic

DIVISION 2 EXISTING CONDITIONS
024119 Selective Demolition

DIVISION 3 CONCRETE
033000 Cast-in-Place Concrete

DIVISION 4 MASONRY
040120 .63 Brick Masonry Repair
042210 Masonry

DIVISION 5 METALS
055000 Metal Fabrications

DIVISION 6 WOOD AND PLASTICS
061000 Rough Carpentry
062013 Exterior Finish Carpentry
062023 Interior Finish Carpentry

DIVISION 7 THERMAL AND MOISTURE PROTECTION
070150.19 Preparation for Reroofing
072100 Thermal Insulation
072119 Foamed-in-Place Insulation
075323 Ethylene-Propylene-Diene-Monomer (EPDM) Roofing
077253 Snow Guards
078413 Penetration Firestopping
079200 Joint Sealants

DIVISION 8 OPENINGS
081416 Flush Wood Doors & Hollow Metal Frames
084113 Aluminum-Framed Entrances and Storefronts
084123 Fire Rated Glass and Framing Systems (Alternate #2)
084413 Glazed Aluminum Curtain Walls

085113 Aluminum Windows
087111 Door Hardware

DIVISION 9 FINISHES
092216 Non-Structural Metal Framing
092900 Gypsum Board
095113 Acoustical Panel Ceilings
096513 Resilient Base and Accessories
096519 Resilient Tile Flooring
099123 Painting

DIVISION 12 FURNISHINGS
124813 Entrance Floor Mats and Frames

DIVISION 23 HVAC
230130.51 HVAC Air-Distribution System Cleaning
230513 Common Motor Requirements for HVAC Equipment
230518 Escutcheons for HVAC Piping
230523.12 Ball Valves for HVAC Piping
230529 Hangers and Supports for HVAC Piping and Equipment
230548 Vibration and Seismic Controls for HVAC
230553 Identification for HVAC Piping and Equipment
230593 Testing, Adjusting and Balancing for HVAC
230713 Duct Insulation
230719 HVAC Piping Insulation
230900 BAS Instrumentation and Control
230913 BAS Instrumentation and Control Devices
230913.13 BAS Actuators and Operators
230913.23 BAS Sensors and Transmitters
230913.33 BAS Control Valves
230913.43 BAS Control Dampers
230923 BAS Direct Digital Control (DDC) System
231123 Facility Natural- Gas Piping
232113 Hydronic Piping
232116 Hydronic Piping Specialties
232300 Refrigerant Piping
233113 Metal Ducts
233300 Air Duct Accessories
233600 Air Terminal Units
233713.13 Air Diffusers
233713.23 Air Registers and Grilles
235216 Condensing Boilers
237413 .1 Packaged, Outdoor, Air-Handling Units (Carrier)
237413.2 Packaged, Outdoor, Air-Handling Units (Aaon)
238126 Split-System Air- Conditioners

DIVISION 26 ELECTRICAL
260519 Low-Voltage Electrical Power Conductors and Cables
260529 Hangers and Supports for Electrical Systems
260533 Raceways and Boxes for Electrical Systems
260544 Sleeves and Sleeve Seals for Electrical Raceways and Cabling

265119 LED Interior Lighting

DIVISION 31 EARTHWORK
311000 Site Clearing
312000 Earth Moving

DIVISION 32 EXTERIOR IMPROVEMENTS
321216 Asphalt Paving
329113 Soil Preparation
329200 Turf and Grasses

DIVISION 33 UTILITIES
334100 Storm Utility Drainage Piping
334600 Subdrainage

END OF TABLE OF CONTENTS

INVITATION TO BID
TOWN OF SEYMOUR, CONNECTICUT
SEYMOUR TOWN BUILDING RENOVATIONS

The Town of Seymour intends to renovate portions of the Town Hall, located at One First Street, Seymour CT 06483; the Library, located at 46 Church Street, Seymour CT 06483 and the Police Station, located at 11 Franklin Street, Seymour CT 06483. The Work includes replacement of windows and exterior doors, insulation of portions of the buildings, exterior masonry repairs, roofing replacement, roof leader replacement, miscellaneous interior repairs, replacement of boilers and HVAC equipment, and lighting replacement. The work also includes asbestos and PCB abatement.

Beginning on Tuesday, February 13, 2018, copies of the Project Documents may be obtained at The Color Company, 85 Willow Street, New Haven CT, (203-624-0440) upon payment of a non-refundable document fee. Copies of the Project Documents may be examined in the Selectman's Office, One First Street, Seymour CT during normal business hours or at www.seymour.org under the Bids and Proposals tab.

Sealed Bids will be received up until 3:00 PM on Thursday March 15, 2018 in the First Selectman's Office, Seymour Town Hall and publicly opened at that time. Any bids received after 11:00 AM will be returned unopened to the firms making such submissions. Electronic submissions will not be accepted.

A mandatory Prebid Conference will be held on Tuesday February 27 at 10:00 AM at the Seymour Town Hall.

Attention of bidders is directed to requirements of this Contract, which require payment of prevailing wages and filing of an approved Affirmative Action Plan to the Commission on Human Rights (CHRO). All bids will be considered valid for a period of ninety (90) days.

A Bid Bond in the amount of five (5) percent of the contract price must accompany all bids. A Performance Bond and a Payment Bond, each covering 100% of the Contract Price will be required under the conditions of the construction contract. All bonds must be from sureties listed on the most recent IRS Circular 570.

The Town of Seymour reserves the right to reject any and all bids and to waive any or all informalities or technical defects in the bids if it is deemed by the Town in its sole discretion to be in its best interests

The Town of Seymour is an Affirmative Action/Equal Opportunity Employer. This contract is subject to State set-aside and contract compliance requirements.

This project is paid for in part by State funds provided by the Connecticut State Library.

Questions relative to the contract documents shall be directed to Ames & Whitaker Architects, 31 Liberty Street, Southington CT 07489; Email scw@amesandwhitaker.com.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

BID PROPOSAL FOR
SEYMOUR TOWN BUILDING RENOVATIONS

PROPOSAL OF:

NAME_____

DATE_____

To: Kurt Miller
First Selectman
Town of Seymour
One First Street
Seymour CT 06483

STREET_____

CITY_____

TELEPHONE_____

Enclosed are THREE (3) COPIES of my Bid Proposal.

I have received the drawings and specifications identified on the Drawing List and in the Table of Contents in the Project Manual titled SEYMOUR TOWN BUILDING RENOVATIONS. I have also received the following addenda, numbered and dated as follows:

_____

I have included the provisions of the above documents and addenda in my bid. I have examined the bid documents and the existing site. In submitting this bid, I agree as follows:

1. To hold my bid open for 90 days after bid opening.

2. To enter into and execute a contract, if awarded on the basis of this bid, according to the contract form in the Project Manual.

3. To accomplish the Work in accord with the contract documents.

4. To begin work within ten (10) days of official notice of acceptance of bid or execution of contract, whichever is first.

5. I will furnish all labor, materials, equipment and services necessary to perform the Work required by the bid documents and will take in full payment thereof the lump sum price of:

_____Dollars ($_____)

6. I will complete the Work required by the bid documents in _____Days

7. With my bid I am providing the following ALTERNATES:

ADD ALTERNATE 1: I will provide and install screens for the windows for a UNIT COST per window as follows:

Type A $_____Dollars ($_____) EACH

Type B $_____Dollars ($_____) EACH

Type C $_____Dollars ($_____) EACH

Type C1 $_____Dollars ($_____) EACH

Type E $_____Dollars ($_____) EACH

Type H $_____Dollars ($_____) EACH

Type J1 $_____Dollars ($_____) EACH

Type K1 $_____Dollars ($_____) EACH

ADD ALTERNATE 2: I will substitute provision of fire-rated glass in doors and sidelights on Drawing A404 for base requirements shown on Det 1/A402 for a NET ADDITIONAL PRICE of

_____Dollars ($_____)

DEDUCT ALTERNATE 1: I will deduct the cost of the replacement of the lighting in the Library shown on Drawings EL102 and EL103 for a NET REDUCTION IN PRICE of

_____Dollars ($_____)

8. With my bid I have enclosed bid security in the form of a bid bond in the amount of five percent (5%) of my bid price.

9. I have included the correct Nondiscrimination Certification from the Connecticut Commission on Human Rights (CHRO) FORM as applies to my firm. I understand the contractor who is selected to perform this State project must comply with CONN.GEN. STAT. 4a-60, 4a-60a, 4a-60g, and 46a-68f inclusive, as amended by June 2015 Special Session Public Act 15-5.

   State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. 4a-60g. (25% of the work with DAS certified Small and Minority-Owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) The contractor tor must demonstrate good faith effort to meet the 25% set-aside goals. The state-funded portion of the work is $112,500, and the set-aside work must be performed at the Library.

10. The undersigned bidder certifies that this bid is made independently and without collusion, agreement, understanding or planned course of action with any other bidder, and that the contents of the bid shall not be disclosed to anyone other than employees, agents or sureties prior to the official bid opening.

With my bid I acknowledge the following understandings:

1. I agree to commence work under this Contract on or before a date to be specified in written "Notice to Proceed" of the OWNER and to substantially complete the project within the bid period stipulated above.

2. I will provide one hundred percent (100%) Performance and Payment Bonds if I am the successful bidder using the forms enclosed herein. The cost of these bonds is included in my bid.

3. I will pay Prevailing Wages, and I will provide the monthly CHRO Employment Utilization Forms 257 and 257a if I am the successful Bidder.

4. The project is Connecticut sales tax exempt, and my bid reflects this.

5. Prior to contract signing, I will provide a list of all subcontractors that I will use on this project.

6. I acknowledge that the Town of Seymour reserves the right to accept or reject any and all bids, to waive any or all informalities or technical defects of the bid, and to make awards deemed to be in the best interests of the people of the Town of Seymour.

Signed: _____

Typed Name: _____

Title: _____

Firm Name: _____

Address: _____

Corporate Seal, if any:

Date: _____

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

AIA® Document A701™ – 1997

Instructions to Bidders

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

Seymour Town Building Renovations

Varies

Seymour, Connecticut 06483

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

THE OWNER:
(Name, legal status and address)

Town of Seymour

1 First Street

Seymour, Connecticut 06483

THE ARCHITECT:
(Name, legal status and address)

Ames & Whitaker Architects, P.C.

31 Liberty Street

Southington CT 06489

TABLE OF ARTICLES

1 DEFINITIONS

2 BIDDER'S REPRESENTATIONS

3 BIDDING DOCUMENTS

4 BIDDING PROCEDURES

5 CONSIDERATION OF BIDS

6 POST-BID INFORMATION

7 PERFORMANCE BOND AND PAYMENT BOND

8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.
081711ACD44

ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201™, or in other Contract Documents are applicable to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

ARTICLE 3 BIDDING DOCUMENTS

§ 3.1 Copies

§ 3.1.1 Bidders and Sub-bidders may purchase complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid. The cost will not be refunded.

§ 3.1.2 Deleted.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

§ 3.2 Interpretation or Correction of Bidding Documents

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

§ 3.3 Substitutions

§ 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.3 If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

§ 3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of Bidding Documents.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

ARTICLE 4 BIDDING PROCEDURES

§ 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

§ 4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

§ 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

§ 4.2.2 If a surety bond is required, it shall be written on AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

§ 4.2.3 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

§ 4.3 Submission of Bids

§ 4.3.1 All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

§ 4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

§ 4.4 Modification or Withdrawal of Bid

§ 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

§ 4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

§ 4.4.3 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

§ 4.4.4 Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 Opening of Bids

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

§ 5.2 Rejection of Bids

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

§ 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

§ 5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 Contractor's Qualification Statement

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

§ 6.2 Owner's Financial Capability

The Owner shall, at the request of the Bidder to whom award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Bids, furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

§ 6.3 Submittals

§ 6.3.1 The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

.1 a designation of the Work to be performed with the Bidder's own forces;

.2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; and

.3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

§ 7.1 Bond Requirements

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Bonds may be secured through the Bidder's usual sources.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents.

§ 7.2 Time of Delivery and Form of Bonds

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312™, Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

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

ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101™, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum.

AIA Document A701™ – 1997. Copyright © 1970, 1974, 1978, 1987, and 1997 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 created on 11/27/2017 16:06:28 under the terms of AIA Documents on Demand® Order No. 2009826588 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/17/07)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's □□good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding ten million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number_____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes__ No__ -Bidder is a minority business enterprise Yes__ No__ (If yes, check ownership category) Black___ Hispanic___ Asian American___ American Indian/Alaskan Native___ Iberian Peninsula___ Individual(s) with a Physical Disability___ Female___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes__ No__	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes__ No__	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes__ No__ NA__
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes__ No__ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes__ No__ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices (Page 5)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)

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

OWNER:
(Name, legal status and address)

BOND AMOUNT:

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

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

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

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

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

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

Signed and sealed this day of

(Witness)	*(Contractor as Principal)* *(Seal)*
	(Title)
(Witness)	*(Surety)* *(Seal)*
	(Title)

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.
/

AIA Document A310™ – 2010 (rev. 10/2010). Copyright © 1963, 1970 and 2010 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. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.
ACD43070610

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

DRAFT

AIA® Document A312™ – 2010

Performance Bond

CONTRACTOR:
(Name, legal status and address)

« »« »
« »

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

« »« »
« »

OWNER:
(Name, legal status and address)

« »« »
« »

CONSTRUCTION CONTRACT
Date: « »
Amount: $ « »
Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)
« »
Amount: $ « »
Modifications to this Bond: « » None « » See Section 16

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:	« »« »	Name and Title:	« »« »

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

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

« »
« »
« »

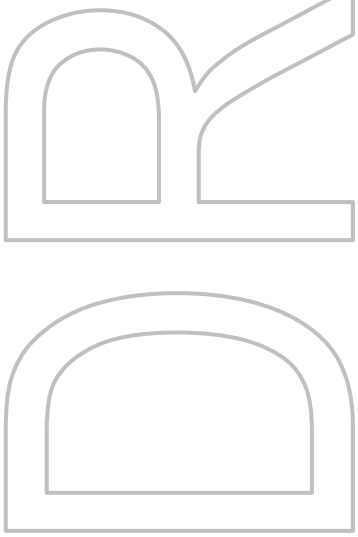
OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

« »
« »
« »
« »
« »
« »

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

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

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



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

AIA Document A312™ – 2010 Performance Bond. 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 draft was produced by AIA software at 11:17:57 on 06/09/2017 under Order No.4574379089_1 which expires on 06/20/2017, and is not for resale.
User Notes: (911427908)

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

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

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

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

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

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

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

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

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

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

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

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

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

AIA Document A312™ – 2010 Performance Bond. 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 draft was produced by AIA software at 11:17:57 on 06/09/2017 under Order No.4574379089_1 which expires on 06/20/2017, and is not for resale.
User Notes: (911427908)

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

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

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

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

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

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

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

§ 14 Definitions

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

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

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

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

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

AIA Document A312™ – 2010 Performance Bond. 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 draft was produced by AIA software at 11:17:57 on 06/09/2017 under Order No.4574379089_1 which expires on 06/20/2017, and is not for resale.
User Notes: (911427908)

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

§ 16 Modifications to this bond are as follows:

« »

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

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:	« »« »	Name and Title:	« »« »
Address:	« »	Address:	« »

DRAFT

AIA Document A312™ – 2010 Performance Bond. 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 draft was produced by AIA software at 11:17:57 on 06/09/2017 under Order No.4574379089_1 which expires on 06/20/2017, and is not for resale.
User Notes: (911427908)

AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:
(Name, legal status and address)

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

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

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

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:

Amount:

Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: ☐ None ☐ See Section 18

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	

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

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or **BROKER:**

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

Sample

AIA Document A312™ – 2010 Payment Bond. Copyright © 2010 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org. 061110

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

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

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

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

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

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

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

.2 have sent a Claim to the Surety (at the address described in Section 13).

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

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

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

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

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

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

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

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

Sample

AIA Document A312™ – 2010 Payment Bond. Copyright © 2010 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

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

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

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

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

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

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

§ 16 Definitions

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

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

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

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

Init.
/
AIA Document A312™ – 2010 Payment Bond. Copyright © 2010 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

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

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

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

§ 18 Modifications to this bond are as follows:

Sample

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

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address		Address	

AIA Document A312™ – 2010 Payment Bond. Copyright © 2010 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

AIA® Document A101™ – 2017

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

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

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

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

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

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

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

The parties should complete A101™–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201™–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

Sample

The Owner and Contractor agree as follows.

Init.
/

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

TABLE OF ARTICLES

1 THE CONTRACT DOCUMENTS

2 THE WORK OF THIS CONTRACT

3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

4 CONTRACT SUM

5 PAYMENTS

6 DISPUTE RESOLUTION

7 TERMINATION OR SUSPENSION

8 MISCELLANEOUS PROVISIONS

9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

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

ARTICLE 2 THE WORK OF THIS CONTRACT

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

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

☐ The date of this Agreement.

☐ A date set forth in a notice to proceed issued by the Owner.

☐ Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

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

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

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:
(Check one of the following boxes and complete the necessary information.)

☐ Not later than ( ) calendar days from the date of commencement of the Work.

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

☐ By the following date:

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

Portion of Work	Substantial Completion Date

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

ARTICLE 4 CONTRACT SUM

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

§ 4.2 Alternates

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

Item	Price

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

Item	Price	Conditions for Acceptance

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

Item	Price

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

Item	Units and Limitations	Price per Unit ($0.00)

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

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

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

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

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

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than ( ) days after the Architect receives the Application for Payment.
(Federal, state or local laws may require payment within a certain period of time.)

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

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

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

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

.1 That portion of the Contract Sum properly allocable to completed Work;

.2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and

.3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

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

.1 The aggregate of any amounts previously paid by the Owner;

.2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;

.3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;

.4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and

.5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:
(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

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

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

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

§ 5.2 Final Payment

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

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

.2 a final Certificate for Payment has been issued by the Architect.

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

§ 5.3 Interest

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

_____ % _____

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

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

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

§ 6.2 Binding Dispute Resolution
For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:
(Check the appropriate box.)

☐ Arbitration pursuant to Section 15.4 of AIA Document A201–2017

☐ Litigation in a court of competent jurisdiction

☐ Other *(Specify)*

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

ARTICLE 7 TERMINATION OR SUSPENSION
§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:
(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

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

ARTICLE 8 MISCELLANEOUS PROVISIONS
§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:
(Name, address, email address, and other information)

§ 8.3 The Contractor's representative:
(Name, address, email address, and other information)

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

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

§ 8.5 Insurance and Bonds

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

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

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

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

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

.1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor

.2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds

.3 AIA Document A201™–2017, General Conditions of the Contract for Construction

.4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

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

.5 Drawings

Number	Title	Date

.6 Specifications

Section	Title	Date	Pages

.7 Addenda, if any:

Number	Date	Pages

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

.8 Other Exhibits:

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

☐ AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:

(Insert the date of the E204-2017 incorporated into this Agreement.)

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

☐ The Sustainability Plan:

Title	Date	Pages

☐ Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

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

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

OWNER *(Signature)*	**CONTRACTOR** *(Signature)*
(Printed name and title)	*(Printed name and title)*

Sample

AIA Document A101™ – 2017. Copyright © 1915, 1918, 1925, 1937, 1951, 1958, 1961, 1963, 1967, 1974, 1977, 1987, 1991, 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. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

AIA® Document A201™ – 2017

General Conditions of the Contract for Construction

for the following PROJECT:
(Name and location or address)
SEYMOUR TOWN BUILDING RENOVATIONS
One First Street, 46 Church Street, 11 Franklin Street

THE OWNER:
(Name, legal status and address)
Town of Seymour
One First Street
Seymour, Connecticut 06483

THE ARCHITECT:
(Name, legal status and address)
Ames & Whitaker Architects, P.C.
31 Liberty Street
Southington, Connecticut 06489

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.

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

INDEX
(Topics and numbers in bold are Section headings.)

Acceptance of Nonconforming Work
9.6.6, 9.9.3, **12.3**
Acceptance of Work
9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, 12.3
Access to Work
3.16, 6.2.1, 12.1
Accident Prevention
10
Acts and Omissions
3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 10.2.8, 13.3.2, 14.1, 15.1.2, 15.2
Addenda
1.1.1
Additional Costs, Claims for
3.7.4, 3.7.5, 10.3.2, 15.1.5
Additional Inspections and Testing
9.4.2, 9.8.3, 12.2.1, **13.4**
Additional Time, Claims for
3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, **15.1.6**
Administration of the Contract
3.1.3, **4.2**, 9.4, 9.5
Advertisement or Invitation to Bid
1.1.1
Aesthetic Effect
4.2.13
Allowances
3.8
Applications for Payment
4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5.1, 9.5.4, 9.6.3, 9.7, 9.10
Approvals
2.1.1, 2.3.1, 2.5, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10.1, 4.2.7, 9.3.2, 13.4.1
Arbitration
8.3.1, 15.3.2, **15.4**
ARCHITECT
4
Architect, Definition of
4.1.1
Architect, Extent of Authority
2.5, 3.12.7, 4.1.2, 4.2, 5.2, 6.3, 7.1.2, 7.3.4, 7.4, 9.2, 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, 13.4.1, 13.4.2, 14.2.2, 14.2.4, 15.1.4, 15.2.1
Architect, Limitations of Authority and Responsibility
2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, 9.4.2, 9.5.4, 9.6.4, 15.1.4, 15.2
Architect's Additional Services and Expenses
2.5, 12.2.1, 13.4.2, 13.4.3, 14.2.4
Architect's Administration of the Contract
3.1.3, 3.7.4, 15.2, 9.4.1, 9.5
Architect's Approvals
2.5, 3.1.3, 3.5, 3.10.2, 4.2.7
Architect's Authority to Reject Work
3.5, 4.2.6, 12.1.2, 12.2.1
Architect's Copyright
1.1.7, 1.5
Architect's Decisions
3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.4, 9.9.1, 13.4.2, 15.2
Architect's Inspections
3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 13.4
Architect's Instructions
3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.4.2
Architect's Interpretations
4.2.11, 4.2.12
Architect's Project Representative
4.2.10
Architect's Relationship with Contractor
1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.2, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.3.2, 13.4, 15.2
Architect's Relationship with Subcontractors
1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3
Architect's Representations
9.4.2, 9.5.1, 9.10.1
Architect's Site Visits
3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4
Asbestos
10.3.1
Attorneys' Fees
3.18.1, 9.6.8, 9.10.2, 10.3.3
Award of Separate Contracts
6.1.1, 6.1.2
Award of Subcontracts and Other Contracts for Portions of the Work
5.2
Basic Definitions
1.1
Bidding Requirements
1.1.1
Binding Dispute Resolution
8.3.1, 9.7, 11.5, 13.1, 15.1.2, 15.1.3, 15.2.1, 15.2.5, 15.2.6.1, 15.3.1, 15.3.2, 15.3.3, 15.4.1
Bonds, Lien
7.3.4.4, 9.6.8, 9.10.2, 9.10.3
Bonds, Performance, and Payment
7.3.4.4, 9.6.7, 9.10.3, **11.1.2**, 11.1.3, **11.5**
Building Information Models Use and Reliance
1.8
Building Permit
3.7.1
Capitalization
1.3
Certificate of Substantial Completion
9.8.3, 9.8.4, 9.8.5

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Certificates for Payment
4.2.1, 4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4, 15.1.4
Certificates of Inspection, Testing or Approval
13.4.4
Certificates of Insurance
9.10.2
Change Orders
1.1.1, 3.4.2, 3.7.4, 3.8.2.3, 3.11, 3.12.8, 4.2.8, 5.2.3, 7.1.2, 7.1.3, **7.2**, 7.3.2, 7.3.7, 7.3.9, 7.3.10, 8.3.1, 9.3.1.1, 9.10.3, 10.3.2, 11.2, 11.5, 12.1.2
Change Orders, Definition of
7.2.1
CHANGES IN THE WORK
2.2.2, 3.11, 4.2.8, **7**, 7.2.1, 7.3.1, 7.4, 8.3.1, 9.3.1.1, 11.5
Claims, Definition of
15.1.1
Claims, Notice of
1.6.2, 15.1.3
CLAIMS AND DISPUTES
3.2.4, 6.1.1, 6.3, 7.3.9, 9.3.3, 9.10.4, 10.3.3, **15**, 15.4
Claims and Timely Assertion of Claims
15.4.1
Claims for Additional Cost
3.2.4, 3.3.1, 3.7.4, 7.3.9, 9.5.2, 10.2.5, 10.3.2, **15.1.5**
Claims for Additional Time
3.2.4, 3.3.1, 3.7.4, 6.1.1, 8.3.2, 9.5.2, 10.3.2, **15.1.6**
Concealed or Unknown Conditions, Claims for
3.7.4
Claims for Damages
3.2.4, 3.18, 8.3.3, 9.5.1, 9.6.7, 10.2.5, 10.3.3, 11.3, 11.3.2, 14.2.4, 15.1.7
Claims Subject to Arbitration
15.4.1
Cleaning Up
3.15, 6.3
Commencement of the Work, Conditions Relating to
2.2.1, 3.2.2, 3.4.1, 3.7.1, 3.10.1, 3.12.6, 5.2.1, 5.2.3, 6.2.2, 8.1.2, 8.2.2, 8.3.1, 11.1, 11.2, **15.1.5**
Commencement of the Work, Definition of
8.1.2
Communications
3.9.1, **4.2.4**
Completion, Conditions Relating to
3.4.1, 3.11, 3.15, 4.2.2, 4.2.9, 8.2, 9.4.2, 9.8, 9.9.1, 9.10, 12.2, 14.1.2, 15.1.2
COMPLETION, PAYMENTS AND
9
Completion, Substantial
3.10.1, 4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2, 15.1.2
Compliance with Laws
2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14.1.1, 14.2.1.3, 15.2.8, 15.4.2, 15.4.3
Concealed or Unknown Conditions
3.7.4, 4.2.8, 8.3.1, 10.3
Conditions of the Contract
1.1.1, 6.1.1, 6.1.4
Consent, Written
3.4.2, 3.14.2, 4.1.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3, 13.2, 15.4.4.2
Consolidation or Joinder
15.4.4
CONSTRUCTION BY OWNER OR BY
SEPARATE CONTRACTORS
1.1.4, **6**
Construction Change Directive, Definition of
7.3.1
Construction Change Directives
1.1.1, 3.4.2, 3.11, 3.12.8, 4.2.8, 7.1.1, 7.1.2, 7.1.3, **7.3**, 9.3.1.1
Construction Schedules, Contractor's
3.10, 3.11, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2
Contingent Assignment of Subcontracts
5.4, 14.2.2.2
Continuing Contract Performance
15.1.4
Contract, Definition of
1.1.2
CONTRACT, TERMINATION OR
SUSPENSION OF THE
5.4.1.1, 5.4.2, 11.5, **14**
Contract Administration
3.1.3, 4, 9.4, 9.5
Contract Award and Execution, Conditions Relating to
3.7.1, 3.10, 5.2, 6.1
Contract Documents, Copies Furnished and Use of
1.5.2, 2.3.6, 5.3
Contract Documents, Definition of
1.1.1
Contract Sum
2.2.2, 2.2.4, 3.7.4, 3.7.5, 3.8, 3.10.2, 5.2.3, 7.3, 7.4, **9.1**, 9.2, 9.4.2, 9.5.1.4, 9.6.7, 9.7, 10.3.2, 11.5, 12.1.2, 12.3, 14.2.4, 14.3.2, 15.1.4.2, **15.1.5, 15.2.5**
Contract Sum, Definition of
9.1
Contract Time
1.1.4, 2.2.1, 2.2.2, 3.7.4, 3.7.5, 3.10.2, 5.2.3, 6.1.5, 7.2.1.3, 7.3.1, 7.3.5, 7.3.6, 7, 7, 7.3.10, 7.4, 8.1.1, 8.2.1, 8.2.3, 8.3.1, 9.5.1, 9.7, 10.3.2, 12.1.1, 12.1.2, 14.3.2, 15.1.4.2, 15.1.6.1, 15.2.5
Contract Time, Definition of
8.1.1
CONTRACTOR
3
Contractor, Definition of
3.1, 6.1.2
Contractor's Construction and Submittal
Schedules
3.10, 3.12.1, 3.12.2, 4.2.3, 6.1.3, 15.1.6.2
Contractor's Employees
2.2.4, 3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3, 11.3, 14.1, 14.2.1.1

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Contractor's Liability Insurance
11.1
Contractor's Relationship with Separate Contractors and Owner's Forces
3.12.5, 3.14.2, 4.2.4, 6, 11.3, 12.2.4
Contractor's Relationship with Subcontractors
1.2.2, 2.2.4, 3.3.2, 3.18.1, 3.18.2, 4.2.4, 5, 9.6.2, 9.6.7, 9.10.2, 11.2, 11.3, 11.4
Contractor's Relationship with the Architect
1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5.1, 3.7.4, 3.10, 3.11, 3.12, 3.16, 3.18, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.4, 15.1.3, 15.2.1
Contractor's Representations
3.2.1, 3.2.2, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.8.2
Contractor's Responsibility for Those Performing the Work
3.3.2, 3.18, 5.3, 6.1.3, 6.2, 9.5.1, 10.2.8
Contractor's Review of Contract Documents
3.2
Contractor's Right to Stop the Work
2.2.2, 9.7
Contractor's Right to Terminate the Contract
14.1
Contractor's Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 9.2, 9.3, 9.8.2, 9.8.3, 9.9.1, 9.10.2, 9.10.3
Contractor's Superintendent
3.9, 10.2.6
Contractor's Supervision and Construction Procedures
1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.4, 7.3.6, 8.2, 10, 12, 14, 15.1.4
Coordination and Correlation
1.2, 3.2.1, 3.3.1, 3.10, 3.12.6, 6.1.3, 6.2.1
Copies Furnished of Drawings and Specifications
1.5, 2.3.6, 3.11
Copyrights
1.5, **3.17**
Correction of Work
2.5, 3.7.3, 9.4.2, 9.8.2, 9.8.3, 9.9.1, 12.1.2, **12.2**, 12.3, 15.1.3.1, 15.1.3.2, 15.2.1
Correlation and Intent of the Contract Documents
1.2
Cost, Definition of
7.3.4
Costs
2.5, 3.2.4, 3.7.3, 3.8.2, 3.15.2, 5.4.2, 6.1.1, 6.2.3, 7.3.3.3, 7.3.4, 7.3.8, 7.3.9, 9.10.2, 10.3.2, 10.3.6, 11.2, 12.1.2, 12.2.1, 12.2.4, 13.4, 14
Cutting and Patching
3.14, 6.2.5
Damage to Construction of Owner or Separate Contractors
3.14.2, 6.2.4, 10.2.1.2, 10.2.5, 10.4, 12.2.4
Damage to the Work
3.14.2, 9.9.1, 10.2.1.2, 10.2.5, 10.4, 12.2.4
Damages, Claims for
3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.3.2, 11.3, 14.2.4, 15.1.7
Damages for Delay
6.2.3, 8.3.3, 9.5.1.6, 9.7, 10.3.2, 14.3.2
Date of Commencement of the Work, Definition of
8.1.2
Date of Substantial Completion, Definition of
8.1.3
Day, Definition of
8.1.4
Decisions of the Architect
3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 6.3, 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4, 9.5.1, 9.8.4, 9.9.1, 13.4.2, 14.2.2, 14.2.4, 15.1, 15.2
Decisions to Withhold Certification
9.4.1, **9.5**, 9.7, 14.1.1.3
Defective or Nonconforming Work, Acceptance, Rejection and Correction of
2.5, 3.5, 4.2.6, 6.2.3, 9.5.1, 9.5.3, 9.6.6, 9.8.2, 9.9.3, 9.10.4, 12.2.1
Definitions
1.1, 2.1.1, 3.1.1, 3.5, 3.12.1, 3.12.2, 3.12.3, 4.1.1, 5.1, 6.1.2, 7.2.1, 7.3.1, 8.1, 9.1, 9.8.1, 15.1.1
Delays and Extensions of Time
3.2, **3.7.4**, 5.2.3, 7.2.1, 7.3.1, **7.4**, **8.3**, 9.5.1, **9.7**, 10.3.2, **10.4**, 14.3.2, **15.1.6**, 15.2.5
Digital Data Use and Transmission
1.7
Disputes
6.3, 7.3.9, 15.1, 15.2
Documents and Samples at the Site
3.11
Drawings, Definition of
1.1.5
Drawings and Specifications, Use and Ownership of
3.11
Effective Date of Insurance
8.2.2
Emergencies
10.4, 14.1.1.2, **15.1.5**
Employees, Contractor's
3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2, 10.3.3, 11.3, 14.1, 14.2.1.1
Equipment, Labor, or Materials
1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2
Execution and Progress of the Work
1.1.3, 1.2.1, 1.2.2, 2.3.4, 2.3.6, 3.1, 3.3.1, 3.4.1, 3.7.1, 3.10.1, 3.12, 3.14, 4.2, 6.2.2, 7.1.3, 7.3.6, 8.2, 9.5.1, 9.9.1, 10.2, 10.3, 12.1, 12.2, 14.2, 14.3.1, 15.1.4
Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2, 10.4, 14.3, 15.1.6, **15.2.5**
Failure of Payment
9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Faulty Work
(See Defective or Nonconforming Work)
Final Completion and Final Payment
4.2.1, 4.2.9, 9.8.2, **9.10**, 12.3, 14.2.4, 14.4.3
Financial Arrangements, Owner's
2.2.1, 13.2.2, 14.1.1.4
GENERAL PROVISIONS
1
Governing Law
13.1
Guarantees (See Warranty)
Hazardous Materials and Substances
10.2.4, **10.3**
Identification of Subcontractors and Suppliers
5.2.1
Indemnification
3.17, **3.18**, 9.6.8, 9.10.2, 10.3.3, 11.3
Information and Services Required of the Owner
2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10.1, 6.1.3, 6.1.4, 6.2.5, 9.6.1, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2, 14.1.1.4, 14.1.4, 15.1.4
Initial Decision
15.2
Initial Decision Maker, Definition of
1.1.8
Initial Decision Maker, Decisions
14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5
Initial Decision Maker, Extent of Authority
14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5
Injury or Damage to Person or Property
10.2.8, 10.4
Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 12.2.1, 13.4
Instructions to Bidders
1.1.1
Instructions to the Contractor
3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.4.2
Instruments of Service, Definition of
1.1.7
Insurance
6.1.1, 7.3.4, 8.2.2, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 10.2.5, **11**
Insurance, Notice of Cancellation or Expiration
11.1.4, 11.2.3
Insurance, Contractor's Liability
11.1
Insurance, Effective Date of
8.2.2, 14.4.2
Insurance, Owner's Liability
11.2
Insurance, Property
10.2.5, 11.2, 11.4, 11.5
Insurance, Stored Materials
9.3.2
INSURANCE AND BONDS
11
Insurance Companies, Consent to Partial Occupancy
9.9.1
Insured loss, Adjustment and Settlement of
11.5
Intent of the Contract Documents
1.2.1, 4.2.7, 4.2.12, 4.2.13
Interest
13.5
Interpretation
1.1.8, 1.2.3, **1.4**, 4.1.1, 5.1, 6.1.2, 15.1.1
Interpretations, Written
4.2.11, 4.2.12
Judgment on Final Award
15.4.2
Labor and Materials, Equipment
1.1.3, 1.1.6, **3.4**, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2
Labor Disputes
8.3.1
Laws and Regulations
1.5, 2.3.2, 3.2.3, 3.2.4, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 9.9.1, 10.2.2, 13.1, 13.3.1, 13.4.2, 13.5, 14, 15.2.8, 15.4
Liens
2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8
Limitations, Statutes of
12.2.5, 15.1.2, 15.4.1.1
Limitations of Liability
3.2.2, 3.5, 3.12.10, 3.12.10.1, 3.17, 3.18.1, 4.2.6, 4.2.7, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 9.6.8, 10.2.5, 10.3.3, 11.3, 12.2.5, 13.3.1
Limitations of Time
2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7, 5.2, 5.3, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15, 15.1.2, 15.1.3, 15.1.5
Materials, Hazardous
10.2.4, **10.3**
Materials, Labor, Equipment and
1.1.3, 1.1.6, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1.2, 10.2.4, 14.2.1.1, 14.2.1.2
Means, Methods, Techniques, Sequences and Procedures of Construction
3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2
Mechanic's Lien
2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8
Mediation
8.3.1, 15.1.3.2, 15.2.1, 15.2.5, 15.2.6, **15.3**, 15.4.1, 15.4.1.1
Minor Changes in the Work
1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1, **7.4**
MISCELLANEOUS PROVISIONS
13
Modifications, Definition of
1.1.1

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Modifications to the Contract
1.1.1, 1.1.2, 2.5, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7, 10.3.2
Mutual Responsibility
6.2
Nonconforming Work, Acceptance of
9.6.6, 9.9.3, **12.3**
Nonconforming Work, Rejection and Correction of
2.4, 2.5, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3, 9.10.4, 12.2
Notice
1.6, 1.6.1, 1.6.2, 2.1.2, 2.2.2., 2.2.3, 2.2.4, 2.5, 3.2.4, 3.3.1, 3.7.4, 3.7.5, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 7.4, 8.2.2 9.6.8, 9.7, 9.10.1, 10.2.8, 10.3.2, 11.5, 12.2.2.1, 13.4.1, 13.4.2, 14.1, 14.2.2, 14.4.2, 15.1.3, 15.1.5, 15.1.6, 15.4.1
Notice of Cancellation or Expiration of Insurance
11.1.4, 11.2.3
Notice of Claims
1.6.2, 2.1.2, 3.7.4, 9.6.8, 10.2.8, **15.1.3**, 15.1.5, 15.1.6, 15.2.8, 15.3.2, 15.4.1
Notice of Testing and Inspections
13.4.1, 13.4.2
Observations, Contractor's
3.2, 3.7.4
Occupancy
2.3.1, 9.6.6, 9.8
Orders, Written
1.1.1, 2.4, 3.9.2, 7, 8.2.2, 11.5, 12.1, 12.2.2.1, 13.4.2, 14.3.1
OWNER
2
Owner, Definition of
2.1.1
Owner, Evidence of Financial Arrangements
2.2, 13.2.2, 14.1.1.4
Owner, Information and Services Required of the
2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2, 9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2, 14.1.1.4, 14.1.4, 15.1.4
Owner's Authority
1.5, 2.1.1, 2.3.32.4, 2.5, 3.4.2, 3.8.1, 3.12.10, 3.14.2, 4.1.2, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3, 7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.2, 9.5.1, 9.6.4, 9.9.1, 9.10.2, 10.3.2, 11.4, 11.5, 12.2.2, 12.3, 13.2.2, 14.3, 14.4, 15.2.7
Owner's Insurance
11.2
Owner's Relationship with Subcontractors
1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2
Owner's Right to Carry Out the Work
2.5, 14.2.2
Owner's Right to Clean Up
6.3
Owner's Right to Perform Construction and to Award Separate Contracts
6.1
Owner's Right to Stop the Work
2.4
Owner's Right to Suspend the Work
14.3
Owner's Right to Terminate the Contract
14.2, 14.4
Ownership and Use of Drawings, Specifications and Other Instruments of Service
1.1.1, 1.1.6, 1.1.7, **1.5**, 2.3.6, 3.2.2, 3.11, 3.17, 4.2.12, 5.3
Partial Occupancy or Use
9.6.6, **9.9**
Patching, Cutting and
3.14, 6.2.5
Patents
3.17
Payment, Applications for
4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1, 14.2.3, 14.2.4, 14.4.3
Payment, Certificates for
4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4
Payment, Failure of
9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2
Payment, Final
4.2.1, 4.2.9, **9.10**, 12.3, 14.2.4, 14.4.3
Payment Bond, Performance Bond and
7.3.4.4, 9.6.7, 9.10.3, **11.1.2**
Payments, Progress
9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4
PAYMENTS AND COMPLETION
9
Payments to Subcontractors
5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2
PCB
10.3.1
Performance Bond and Payment Bond
7.3.4.4, 9.6.7, 9.10.3, **11.1.2**
Permits, Fees, Notices and Compliance with Laws
2.3.1, **3.7**, 3.13, 7.3.4.4, 10.2.2
PERSONS AND PROPERTY, PROTECTION OF
10
Polychlorinated Biphenyl
10.3.1
Product Data, Definition of
3.12.2
Product Data and Samples, Shop Drawings
3.11, **3.12**, 4.2.7
Progress and Completion
4.2.2, **8.2**, 9.8, 9.9.1, 14.1.4, 15.1.4
Progress Payments
9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4
Project, Definition of
1.1.4
Project Representatives
4.2.10

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Property Insurance
10.2.5, **11.2**
Proposal Requirements
1.1.1
PROTECTION OF PERSONS AND PROPERTY
10
Regulations and Laws
1.5, 2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 9.9.1, 10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14, 15.2.8, 15.4
Rejection of Work
4.2.6, 12.2.1
Releases and Waivers of Liens
9.3.1, 9.10.2
Representations
3.2.1, 3.5, 3.12.6, 8.2.1, 9.3.3, 9.4.2, 9.5.1, 9.10.1
Representatives
2.1.1, 3.1.1, 3.9, 4.1.1, 4.2.10, 13.2.1
Responsibility for Those Performing the Work
3.3.2, 3.18, 4.2.2, 4.2.3, 5.3, 6.1.3, 6.2, 6.3, 9.5.1, 10
Retainage
9.3.1, 9.6.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3
Review of Contract Documents and Field Conditions by Contractor
3.2, 3.12.7, 6.1.3
Review of Contractor's Submittals by Owner and Architect
3.10.1, 3.10.2, 3.11, 3.12, 4.2, 5.2, 6.1.3, 9.2, 9.8.2
Review of Shop Drawings, Product Data and Samples by Contractor
3.12
Rights and Remedies
1.1.2, 2.4, 2.5, 3.5, 3.7.4, 3.15.2, 4.2.6, 5.3, 5.4, 6.1, 6.3, 7.3.1, 8.3, 9.5.1, 9.7, 10.2.5, 10.3, 12.2.1, 12.2.2, 12.2.4, **13.3**, 14, 15.4
Royalties, Patents and Copyrights
3.17
Rules and Notices for Arbitration
15.4.1
Safety of Persons and Property
10.2, 10.4
Safety Precautions and Programs
3.3.1, 4.2.2, 4.2.7, 5.3, **10.1**, 10.2, 10.4
Samples, Definition of
3.12.3
Samples, Shop Drawings, Product Data and
3.11, **3.12**, 4.2.7
Samples at the Site, Documents and
3.11
Schedule of Values
9.2, 9.3.1
Schedules, Construction
3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2
Separate Contracts and Contractors
1.1.4, 3.12.5, 3.14.2, 4.2.4, 4.2.7, 6, 8.3.1, 12.1.2
Separate Contractors, Definition of
6.1.1
Shop Drawings, Definition of
3.12.1
Shop Drawings, Product Data and Samples
3.11, **3.12**, 4.2.7
Site, Use of
3.13, 6.1.1, 6.2.1
Site Inspections
3.2.2, 3.3.3, 3.7.1, 3.7.4, 4.2, 9.9.2, 9.4.2, 9.10.1, 13.4
Site Visits, Architect's
3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4
Special Inspections and Testing
4.2.6, 12.2.1, 13.4
Specifications, Definition of
1.1.6
Specifications
1.1.1, **1.1.6**, 1.2.2, 1.5, 3.12.10, 3.17, 4.2.14
Statute of Limitations
15.1.2, 15.4.1.1
Stopping the Work
2.2.2, 2.4, 9.7, 10.3, 14.1
Stored Materials
6.2.1, 9.3.2, 10.2.1.2, 10.2.4
Subcontractor, Definition of
5.1.1
SUBCONTRACTORS
5
Subcontractors, Work by
1.2.2, 3.3.2, 3.12.1, 3.18, 4.2.3, 5.2.3, 5.3, 5.4, 9.3.1.2, 9.6.7
Subcontractual Relations
5.3, 5.4, 9.3.1.2, 9.6, 9.10, 10.2.1, 14.1, 14.2.1
Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 7.3.4, 9.2, 9.3, 9.8, 9.9.1, 9.10.2, 9.10.3
Submittal Schedule
3.10.2, 3.12.5, 4.2.7
Subrogation, Waivers of
6.1.1, **11.3**
Substances, Hazardous
10.3
Substantial Completion
4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, **9.8**, 9.9.1, 9.10.3, 12.2, 15.1.2
Substantial Completion, Definition of
9.8.1
Substitution of Subcontractors
5.2.3, 5.2.4
Substitution of Architect
2.3.3
Substitutions of Materials
3.4.2, 3.5, 7.3.8
Sub-subcontractor, Definition of
5.1.2
Subsurface Conditions
3.7.4
Successors and Assigns
13.2

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

Superintendent
3.9, 10.2.6
Supervision and Construction Procedures
1.2.2, **3.3**, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.4, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.4
Suppliers
1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.5.4, 9.6, 9.10.5, 14.2.1
Surety
5.4.1.2, 9.6.8, 9.8.5, 9.10.2, 9.10.3, 11.1.2, 14.2.2, 15.2.7
Surety, Consent of
9.8.5, 9.10.2, 9.10.3
Surveys
1.1.7, 2.3.4
Suspension by the Owner for Convenience
14.3
Suspension of the Work
3.7.5, 5.4.2, 14.3
Suspension or Termination of the Contract
5.4.1.1, 14
Taxes
3.6, 3.8.2.1, 7.3.4.4
Termination by the Contractor
14.1, 15.1.7
Termination by the Owner for Cause
5.4.1.1, **14.2**, 15.1.7
Termination by the Owner for Convenience
14.4
Termination of the Architect
2.3.3
Termination of the Contractor Employment
14.2.2

TERMINATION OR SUSPENSION OF THE CONTRACT
14
Tests and Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 10.3.2, 12.2.1, **13.4**
TIME
8
Time, Delays and Extensions of
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, **8.3**, 9.5.1, 9.7, 10.3.2, 10.4, 14.3.2, 15.1.6, 15.2.5
Time Limits
2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2, 5.2, 5.3, 5.4, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15.1.2, 15.1.3, 15.4
Time Limits on Claims
3.7.4, 10.2.8, 15.1.2, 15.1.3
Title to Work
9.3.2, 9.3.3
UNCOVERING AND CORRECTION OF WORK
12
Uncovering of Work
12.1
Unforeseen Conditions, Concealed or Unknown
3.7.4, 8.3.1, 10.3
Unit Prices
7.3.3.2, 9.1.2
Use of Documents
1.1.1, 1.5, 2.3.6, 3.12.6, 5.3
Use of Site
3.13, 6.1.1, 6.2.1
Values, Schedule of
9.2, 9.3.1
Waiver of Claims by the Architect
13.3.2
Waiver of Claims by the Contractor
9.10.5, 13.3.2, **15.1.7**
Waiver of Claims by the Owner
9.9.3, 9.10.3, 9.10.4, 12.2.2.1, 13.3.2, 14.2.4, **15.1.7**
Waiver of Consequential Damages
14.2.4, 15.1.7
Waiver of Liens
9.3, 9.10.2, 9.10.4
Waivers of Subrogation
6.1.1, **11.3**
Warranty
3.5, 4.2.9, 9.3.3, 9.8.4, 9.9.1, 9.10.2, 9.10.4, 12.2.2, 15.1.2
Weather Delays
8.3, 15.1.6.2
Work, Definition of
1.1.3
Written Consent
1.5.2, 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.10.3, 13.2, 13.3.2, 15.4.4.2
Written Interpretations
4.2.11, 4.2.12
Written Orders
1.1.1, 2.4, 3.9, 7, 8.2.2, 12.1, 12.2, 13.4.2, 14.3.1

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

§ 1.3 Capitalization

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

§ 1.4 Interpretation

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

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

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

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

§ 1.6 Notice

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

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

§ 1.7 Digital Data Use and Transmission

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

§ 1.8 Building Information Models Use and Reliance

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

ARTICLE 2 OWNER

§ 2.1 General

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

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

§ 2.2 Evidence of the Owner's Financial Arrangements

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

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

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

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

§ 2.3 Information and Services Required of the Owner

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

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

§ 2.4 Owner's Right to Stop the Work

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

§ 2.5 Owner's Right to Carry Out the Work

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

ARTICLE 3 CONTRACTOR

§ 3.1 General

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

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

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

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

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

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

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

§ 3.3 Supervision and Construction Procedures

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

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

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

§ 3.4 Labor and Materials

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

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

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

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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

§ 3.6 Taxes

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

§ 3.7 Permits, Fees, Notices and Compliance with Laws

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

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

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

§ 3.7.4 Concealed or Unknown Conditions

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

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

§ 3.8 Allowances

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

.1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

.2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and

.3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

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

§ 3.9 Superintendent

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

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

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

§ 3.10 Contractor's Construction and Submittal Schedules

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

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

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

§ 3.11 Documents and Samples at the Site

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

§ 3.12 Shop Drawings, Product Data and Samples

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

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

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

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

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

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

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

§ 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,

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

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

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

§ 4.2 Administration of the Contract

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

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

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

§ 4.2.4 Communications

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

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

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

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

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

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

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

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

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

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

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

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

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

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

§ 5.3 Subcontractual Relations

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

§ 5.4 Contingent Assignment of Subcontracts

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

.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and

.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

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

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

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

§ 6.2 Mutual Responsibility

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

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

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

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

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

§ 6.3 Owner's Right to Clean Up

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

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

§ 7.2 Change Orders

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

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

§ 7.3 Construction Change Directives

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

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

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

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

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

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

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

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

§ 7.4 Minor Changes in the Work

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

ARTICLE 8 TIME

§ 8.1 Definitions

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

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

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

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

§ 8.2 Progress and Completion

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

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

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

§ 8.3 Delays and Extensions of Time

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

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

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

§ 9.2 Schedule of Values

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

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

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

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

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

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

§ 9.4 Certificates for Payment

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

(3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

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

§ 9.5 Decisions to Withhold Certification

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

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

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

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

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

§ 9.6 Progress Payments

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

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

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

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

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

§ 9.7 Failure of Payment

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

§ 9.8 Substantial Completion

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

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its 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.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

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

§ 10.2 Safety of Persons and Property

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

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

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

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

§ 10.2.8 Injury or Damage to Person or Property

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

§ 10.3 Hazardous Materials and Substances

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

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

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

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

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

§ 10.4 Emergencies

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

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

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

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

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

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

§ 11.2 Owner's Insurance

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

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

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

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

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

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

§11.5 Adjustment and Settlement of Insured Loss

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

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

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

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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:

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

.1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;

.2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;

.3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

.4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

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

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

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

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

.1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;

.2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or Suppliers;

.3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or

.4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

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

.1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 Accept assignment of subcontracts pursuant to Section 5.4; and

.3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

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

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

§ 14.3 Suspension by the Owner for Convenience

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

.1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or

.2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

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

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

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

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

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

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

§ 15.1.2 Time Limits on Claims

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

§ 15.1.3 Notice of Claims

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

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

§ 15.1.4 Continuing Contract Performance

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

§ 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.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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

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

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

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

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

§ 15.3 Mediation

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

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

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

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

§ 15.4 Arbitration

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

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

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

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.

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 created on 12/21/2017 11:25:52 under the terms of AIA Documents on Demand® Order No. 2009854929 , and is not for resale. This document is licensed by The American Institute of Architects for one-time use only, and may not be reproduced prior to its completion.

SUPPLEMENTARY CONDIT`IONS

The following supplements modify the "General Conditions for the Contract for Construction," AIA Document A201-2007. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

1. Article 3 - Add Paragraph 3.1.4: Non-Discrimination Warranty: The Contractor agrees and warrants that in the performance of this contract the Contractor will not discriminate or permit discrimination against any person or groups of persons on the grounds of race, color, religion or national origin, age, marital status, sex or physical disability, including but not limited to blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved in any manner prohibited by the laws of the United States and of the State of Connecticut and further agrees to provide such information requested by the Owner concerning the employment practices and procedures of the Contractor as related to the provisions of this section. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

2. Article 3 - Add Paragraph 3.1.5: The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

3. Article 3 - Add Paragraph 3.1.6: All work to be performed under this Contract shall fully comply with the provisions of the Federal Occupational Safety and Health Act of 1970 and to any rules and regulations pursuant to the Act.

4. Article 3 – Number the existing paragraph as 3.6.1.

5. Article 3 – Add Paragraph 3.6.2: The Project is exempt from Connecticut Sales Tax. Building permit fees will be waived except for the State Education fee.

6. Article 7 – Add Paragraph 7.3.7.6: The allowance for the combined overhead and profit included in the total cost to the Owner stated in Paragraph 7.3.7 shall be based on the following schedule:

    1. For the Contractor, for Work performed by the Contractor's own forces: ten percent (10%) of the net cost.
    2. For the Contractor, for Work performed by the Contractor's Subcontractor, ten percent (10%) of the net cost.
    3. For each Subcontractor or Sub-subcontractor involved in the Work performed by that Subcontractor's or Sub-subcontractor's own forces, ten percent (10%) of the net cost

7. Article 8 – Add Paragraph 8.2.1.1: If, in the opinion of the Owner, after consultation with the Contractor and Architect, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Owner,

without addition cost to the Owner. In this circumstance, the Owner may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction planned, and to submit for approval any supplementary schedule or schedules in chart form as the Owner deems necessary to demonstrate how the approved rate of progress will be regained.

8. Article 9 – Add Paragraph 9.3.1.3: Submit Applications for Payment on AIA Forms G702 and G703 – Application for Payment.

9. Article 9 – Add Paragraph 9.3.3.4: Submit waivers of lien with each application for payment.

10. Article 9 – Add Paragraph 9.5.1.8 failure to submit waivers of lien.

11. Article 11 – Modify Paragraph 11.3.1: The Owner shall purchase and maintain a builder's risk or "all risk" policy. All other requirements of the paragraph shall be unchanged.

12. Article 11 - Add Subparagraph 11.1.5: Contractor's Required Insurance Coverage Schedule

Contractor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name Town of Seymour as an Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's Rating of "A-" VIII. In addition, all Carriers are subject to approval by Town of Seymour.

		(Minimum Limits)
General Liability	Each Occurrence	$1,000,000
	General Aggregate	$2,000,000
	Products/Completed Operations Aggregate	$2,000,000
Auto Liability	Combined Single Limit Each Accident Including Endorsements: • MCS-90 • Pollution Liability (CA9948)	$1,000,000
Pollution Liability	Each Claim or Each Occurrence	$1,000,000
	Aggregate	$1,000,000
	-policy must contain no exclusion for Asbestos or PCBs	

Umbrella	Each Occurrence	$3,000,000
(Excess Liability)	Aggregate	$3,000,000

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Workers' Compensation and	WC Statutory Limits	
Employers' Liability	EL Each Accident	$1,000,000
	EL Disease Each Employee	$1,000,000
	EL Disease Policy Limit	$1,000,000

Original, completed Certificates of Insurance must be presented to Town of Seymour prior to contract issuance. Contractor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the Town.

Builders Risk Insurance: The Town of Seymour will carry Builder's Risk Insurance.

Indemnification:

. The Contractor shall indemnify, defend and hold harmless the State of Connecticut, the Town of Seymour, the Architect and their officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) claims arising, directly or indirectly, in connections with the Contract, including the acts of commission or omission (collectively, the "Acts") of the Contractor or contractor parties and (2) liabilities, damages, losses, costs and expenses, including but not limited to attorneys' and other professionals' fees, arising, directly or indirectly, in connection with claims, Acts or the contract. The Contractor shall use counsel reasonably acceptable to the Town in carrying out its obligations under this section. The Contractor's obligations under this section to indemnify, defend and hold harmless against claims includes claims concerning confidentiality of any part of any part of or all of the Contractor's bid, proposal or any records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the performance.

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

AIA® Document G702™ – 1992

Application and Certificate for Payment

TO OWNER:

PROJECT:

APPLICATION NO:

PERIOD TO:

CONTRACT FOR:

CONTRACT DATE:

PROJECT NOS: / /

Distribution to:
OWNER ☐
ARCHITECT ☐
CONTRACTOR ☐
FIELD ☐
OTHER ☐

FROM CONTRACTOR:

VIA ARCHITECT:

CONTRACTOR'S APPLICATION FOR PAYMENT

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

1. **ORIGINAL CONTRACT SUM** ..... $ _____
2. **NET CHANGE BY CHANGE ORDERS** ..... $ _____
3. **CONTRACT SUM TO DATE** *(Line 1 ± 2)* ..... $ _____
4. **TOTAL COMPLETED & STORED TO DATE** *(Column G on G703)* ..... $ _____
5. **RETAINAGE:**
   a. _____% of Completed Work
   (Columns D + E on G703) $ _____
   b. _____% of Stored Material
   (Column F on G703) $ _____

   Total Retainage *(Lines 5a + 5b, or Total in Column I of G703)*..... $ _____
6. **TOTAL EARNED LESS RETAINAGE** ..... $ _____
   (Line 4 minus Line 5 Total)
7. **LESS PREVIOUS CERTIFICATES FOR PAYMENT** ..... $ _____
   (Line 6 from prior Certificate)
8. **CURRENT PAYMENT DUE** ..... $ _____
9. **BALANCE TO FINISH, INCLUDING RETAINAGE**
   (Line 3 minus Line 6) $ _____

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	$	$
Total approved this month	$	$
TOTAL	$	$
NET CHANGES by Change Order	$	

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

CONTRACTOR:

By: _____ Date: _____

State of:

County of:

Subscribed and sworn to before me this _____ day of _____

Notary Public:

My commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

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

AMOUNT CERTIFIED ..... $ _____

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

ARCHITECT:

By: _____ Date: _____

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

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA Document G702™ – 1992. Copyright © 1953, 1963, 1965, 1971, 1978, 1983 and 1992 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. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

010711ACD44

AIA® Document G703™ – 1992

Continuation Sheet

AIA Document G702™–1992, Application and Certificate for Payment, or G732™–2009, Application and Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.
In tabulations below, amounts are in US dollars.
Use Column I on Contracts where variable retainage for line items may apply.

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

A	B	C	D	E	F	G		H	I
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED		MATERIALS PRESENTLY STORED *(Not in D or E)*	TOTAL COMPLETED AND STORED TO DATE *(D+E+F)*	% *(G ÷ C)*	BALANCE TO FINISH *(C – G)*	RETAINAGE *(If variable rate)*
			FROM PREVIOUS APPLICATION *(D + E)*	THIS PERIOD					
	GRAND TOTAL								

Sample

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA Document G703™ – 1992. Copyright © 1963, 1965, 1966, 1967, 1970, 1978, 1983 and 1992 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. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53
Certified Payrolls with a statement of compliance
shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:

SUBCONTRACTOR NAME & ADDRESS

WORKER'S COMPENSATION INSURANCE CARRIER

POLICY #

EFFECTIVE DATE:
EXPIRATION DATE:

PAYROLL NUMBER | Week-Ending Date | PROJECT NAME & ADDRESS

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate	1. $ 2. $ 3. $							
												$ Cash Fringe	4. $ 5. $ 6. $							
												$ Base Rate	1. $ 2. $ 3. $							
												$ Cash Fringe	4. $ 5. $ 6. $							
												$ Base Rate	1. $ 2. $ 3. $							
												$ Cash Fringe	4. $ 5. $ 6. $							
												$ Base Rate	1. $ 2. $ 3. $							
												$ Cash Fringe	4. $ 5. $ 6. $							

12/9/2013
WWS-CP1

*IF REQUIRED

*SEE REVERSE SIDE

PAGE NUMBER _____OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

1) Medical or hospital care _____ 4) Disability_____

2) Pension or retirement _____ 5) Vacation, holiday_____

3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____of _____, (hereafter known as

Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

a) The records submitted are true and accurate;

b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

d) Each such person is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and

f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

_____ _____ _____

(Signature) (Title) Submitted on (Date)

*****THIS IS A PUBLIC DOCUMENT*****
*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

Weekly Payroll Certification For Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Week-Ending Date:

Contractor or Subcontractor Business Name:

WEEKLY PAYROLL

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S / M / T / W / TH / F / S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA / FEDERAL WITH-HOLDING / STATE WITH-HOLDING / LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
						$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $				
						$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $				
						$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $				
						$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $				
						$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $				

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

010100 SUMMARY OF WORK

A. PROJECT DESCRIPTION

1. This project is renovations to the Town Hall, the Library and the Police Station `for the Town of Seymour, Connecticut. The project is described on drawings and in the project manual by Ames & Whitaker Architects, 31 Liberty Street, Southington CT 06489 and includes the following:

   Town Hall-One First Street, Seymour CT 06483
   - Replace approximately 40 windows and construct 2 more.
   - Replace 3 entrance doors and related glazing
   - Replace the HVAC system and install a BMS
   - Replace the boiler
   - Provide miscellaneous painting
   - Insulate portions of the attic
   - Replace 34 doors in Basement

   Library-46 Church Street, Seymour CT 06483
   - Replace approximately 30 windows
   - Replace an exterior door and related glazing
   - Repair and replace a damaged brick pilaster
   - Replace 9 rain leaders
   - Install a new lay-in ceiling in the library stacks
   - Construct a 1-hr rated enclosure at an exit stair
   - Replace finishes in an exit stair
   - Provide miscellaneous painting
   - Replace all light fixtures
   - Replace the boiler
   - Install new HVAC systems in the Lower Level

   Police Station-11 Franklin Street, Seymour CT 06483
   - Replace 4 small modified bitumen roofs with EPDM
   - Insulate the attic under the metal roof
   - Provide miscellaneous gypsum board repairs and painting
   - Repair water infiltration problems
   - Replace 7 basement window lintels
   - Caulk brick parapet joints
   - Replace front entry paving and ramp
   - Clean sign wall in front of building and caulk capstone joints
   - Upgrade building management system and VAV boxes

   Other related work is also included as described on the drawings and specifications.

2 Hazardous material remediation is included in the Scope of Work. The Work includes asbestos, lead and PCB remediation. The scope of this work is

described in Division 2 and the drawings. Remediation in accordance with laws regulating these materials is part of this project

010150 CONTRACTOR'S USE OF PREMISES

A. The Contractor shall confine his operations, including storage of apparatus, equipment and materials to the site and building areas designated by the Town's representative.

B. Perform construction operations in accordance with Chapter 33 of the *2012 International Building Code*, part of the STATE OF CONNECTICUT BUILDING CODE/2016.

C. Parking for Contractor's employees will be limited to an area (or areas) designated by the Owner.

D. Prior to beginning construction, erect erosion and sedimentation controls shown on drawings.

010160 OCCUPANCY

A. The Owner will occupy the sites and buildings during the construction period. The Contractor shall establish a work schedule with the Town's Representative to establish times when rooms or areas must be clear for construction operations. This schedule must provide a minimum of one week's notice for each room or area. No more than two rooms or areas in each building shall be disturbed at one time unless approved by the Town's Representative.

B. Safety shall be a paramount concern at all times; construction operation sites shall be partioned off from adjacent occupied portions of the building at all times. Equipment operating on the site shall be safeguarded from non-construction personnel.

010200 OVERTIME

A. The work shall be performed during normal and customary working hours Monday thru Friday.

B. The Contractor may elect to perform portions of the work on an overtime basis for his convenience, but no premium will be paid by the Owner for this work.

010250 APPLICATIONS FOR PAYMENT

A. Schedule of Values:

1. Correlate line items in the Schedule of Values with other schedules and forms. Use AIA Document G702 and Continuation Sheet G703 as the form for the Schedule.

2. Submit the Schedule of Values to the Architect at the earliest date, but no later than 7 days before the date scheduled for submittal of the initial Application for Payment.

3. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format. Break Contract Sum down in enough detail to facilitate evaluation of Applications for Payment. Break subcontract amounts down into several line items.

B. Applications for Payment: Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner. Use AIA Document G702 and Continuation Sheets G703.

1. Application Preparation: Complete every entry, including notarization and execution by person authorized to sign on behalf of the Contractor. Incomplete applications will be returned without action.

a. Entries shall match data on the Schedule of Values.

b. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the period covered by the application.

2. Transmittal: Submit 3 executed original, typed copies of each application to the Architect; one copy shall be complete, including waivers of lien and similar attachments. Submit with a transmittal listing attachments and recording information related to the application.

3. Waivers of Lien: With each application, submit waivers of lien from every entity who may file a lien arising out of the Contract, and related to the Work covered by the payment. Submit waivers of lien on forms, and executed in a manner, acceptable to the Owner's legal counsel.

C. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include:

1. List of subcontractors.
2. Schedule of Values.
3. Contractor's Construction Schedule (preliminary if not final).
4. Submittal Schedule (preliminary if not final).
5. Copies of building permits.
6. Certificates of insurance and insurance policies.
7. Performance and payment bonds.

D. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions. Administrative actions and submittals that precede or coincide with this application include:

1. Occupancy permits.
2. Warranties and maintenance agreements.
3. Test/adjust/balance records.
4. Maintenance instructions.
5. Change-over information related to Owner's occupancy.
6. Final cleaning.

7. Application for reduction of retainage, and consent of surety.

E. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment application include:

1. Completion of Project closeout requirements in Section 01700.
2. Completion of items specified for completion after Substantial Completion.
3. Transmittal of required Project construction records to Owner.
4. Affidavits of Payment of Debts and Claims and of Release of Liens (AIA G706 and 706A).

010350 MODIFICATION PROCEDURES

A.. Minor Changes in the Work: Supplemental instructions authorizing minor changes in the Work, not involving adjustment to Contract Sum or Time, will be issued by the Architect on AIA form G710.

B. Change Order Proposal Requests: Proposal requests that require adjustment to the Contract Sum, or Time if accepted, will be issued by the Architect with a detailed description of the proposed change and supplemental or revised Drawings and Specifications. Proposal requests are for information only and shall not be considered as instruction to stop work in progress, or to execute the change.

1. Include a statement outlining reasons for the change. Provide a complete description of the change. Indicate effect of the proposed change on the Contract Sum and Time.

2. Include a list of quantities of products to be purchased and unit costs, along with amount of purchases to be made. If requested, furnish survey data to substantiate quantities. The Owner reserves the right to establish the actual quantity of work-in-place by independent quantity survey, measure or count.

3. Comply with requirements in Section “Product Substitutions” if the change requires substitution of one product or system for product or system specified.

4. Submit two (2) copies of change request with two (2) copies of backup information.

5. Adjustments of Allowances: Submit claims for increased costs because of change in scope or nature of the allowance described in contract documents, whether for purchase amount or Contractor’s handling, labor, installation, overhead and profit, within 20 days of receipt of change order or construction change directive authorizing work to proceed. Claims submitted later than 20 days will be rejected.

a. Change order cost amount shall not include Contractor’s or subcontractor’s indirect expense except when clearly demonstrated that the nature or scope of work required was changed from what could have been foreseen from the allowance description and other information in contract documents.

b. No change to the Contractor's indirect expense is permitted for selection of higher or lower priced materials or systems, of the same scope and nature as originally indicated.

6. Construction Change Directive: When the Owner and Contractor are not in agreement on terms of a Change Order Proposal Request, the Architect may issue Construction Change Directive on AIA Form G714, instructing the Contractor to proceed with a change, for subsequent inclusion in a Change Order.

a. Construction Change Directive will contain a complete description of the change and designate method to be followed to determine change in the Contract Sum or Time.

7. Change Order Procedures: Upon the Owner's approval of a Change Order Proposal Request, the Architect will issue a Change Order for signatures of the Owner and Contractor on AIA Form G701, as provided in the Conditions of the Contract.

a. No construction change shall be initiated without an executed change order.

010400 COORDINATION

A. Coordinate the work of the several trades to assure the efficient and orderly sequence of installation of construction elements.

B. Verify that characteristics of interrelated equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting and placing equipment in service.

C. Coordinate space requirements and installation of mechanical and electrical work. Follow routing shown for pipes, ducts, and conduits as closely as practicable; make runs parallel with lines of building. Use spaces efficiently to maximize accessibility for other installations.

D. In finished areas (except as otherwise shown), conceal pipes, duct and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

010450 CUTTING AND PATCHING

A. Openings and chases may not be shown on the Drawings. It is the responsibility of the Contractor to examine the Drawings and to provide chases, channels or openings where needed.

B. After completion of openings, channels and/or chases, the Contractor shall close and finish same.

C. Permission shall be obtained from the Architect before cutting beams, arches, lintels or other structural members.

D. Do cutting and patching to integrate elements of work, uncover ill-timed, defective and non-conforming work.

E. The Contractor shall verify dimensions for built-in work and/or work adjoining that of other trades before ordering any material or doing any work. Discrepancies shall be submitted to the Architect before proceeding with the work.

010500 FIELD ENGINEERING

A. Verify layout information shown on the Drawings before proceeding to lay out the Work.

B. Existing utilities and equipment: The existence and location of underground utilities and construction are not shown. Before beginning work, verify the existence and location of underground utilities and other construction.

C. Performance: Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.

010900 STANDARDS, CODES AND SPECIFICATIONS

A. For products specified by association or trade standards, comply with requirements of the standard, except when requirements that are more rigid are specified or are required by applicable codes.

B. References to standard specifications and codes refer to the editions current at the bid due date. References include their addenda and errata, if any, and these references shall be considered a part of these specifications as if they were printed herein in full.

C. All work shall be in conformance with all state, local and federal codes and regulations including the latest provisions of the Federal Occupational Safety and Health (OSHA) Act of 1970 and provisions related to hazardous materials.

011200 RENOVATION/DEMOLITION PROJECT PROCEDURES FOR HAZARDOUS MATERIALS

A. Lead Paint:

1. Portions of these facilities were constructed before 1978, and lead-containing materials will be encountered in this work.

2. Testing has been performed, and the windows and trim of the original buildings of the Town Hall and Library have been determined to have been painted with lead containing paint. They are identified on the drawings.

3. Any work related to removal of existing windows and casings and painting preparation of the interior trim shall be conducted under the EPA’s Renovation, Repair and Painting Rule (RRP). All workers involved in such work shall have proper training according to the RRP and state requirements. All materials identified as containing lead shall be legally disposed with proper manifests and certifications of proper disposal provided to the Town of Seymour and all required entities..

B. Asbestos and PCBs

1. Testing has been performed and the glazing caulking and perimeter frame caulking of some windows have been determined to contain asbestos. Testing has been performed and the entrance mat and related materials at the original 1956 entrance of the Library and some base flashings at the Town Hall.have been determined to contain PCBs.

2 Remediation must be performed by licensed contractors using workers properly trained in asbestos removal and decontamination procedures.

3. The Abatement Contractor shall submit proper affidavits, notices and submittals as required by law at the correct times during the sequence of operations. At the conclusion of operations, manifests and certifications of proper disposal shall be provided to the Town of Seymour and all required governmental entities.

4. Known asbestos and PCB containing materials shall be removed under this contract. Should a Trade Contractor encounter material he believes contains asbestos, stop work and inform the Town's Representative. If the material is determined to have asbestos, it will be remediated and removed as described in items one through three above.

5. Asbestos and PCB removal requirements are shown in HAZARDOUS MATERIALS ABATEMENT sections of the Project Manual.

012100 PRECONSTRUCTION CONFERENCE

A. The Architect will organize a Preconstruction Conference and notify the parties concerned.

012200 PROJECT MEETINGS

A. A schedule of regular project meetings will be established at the Preconstruction Conference.

B. Job meetings shall be held periodically (approximately every two weeks). Notice of meeting date shall be provided at least one week prior to scheduled date. Meetings shall be conducted and recorded by the Architect.

1. Meetings shall be attended by the Job Superintendent and appropriate Subcontractors.

013400 SHOP DRAWINGS

A. Details shall be large scale or full size.

B. The Contractor shall review the Shop Drawings, stamp with his approval and submit them with reasonable promptness and in orderly sequence to cause no delay in his work or in the work of any subcontractor. Shop Drawings shall be identified for item, material and project number. The Contractor shall inform the Architect, in writing, of any deviation in the Shop Drawings from the requirements of the Contract Documents.

C. The Architect will review and comment on Shop Drawings with reasonable promptness to cause no delay but only for conformance with the design concept of the project and with the information given in the Contract Documents.

D. Copies of all approved shop drawings shall be available in the Field Office.

013410 SAMPLES

A. Submit samples of items where specifically required. Furnish information and data for items or materials offered as equals to those specified to establish their equality.

B. Mark samples to show:

1. Name and number of project.

2. Name or trade, type, quality or grade and any further designation necessary to identify the items or materials.

3. Manufacturer's or producer's name.

4. Name of Contractor, and Subcontractor, if any.

C. Submit samples of size and/or number sufficient to show quality, type, range of color, finish and texture.

D. Furnished materials shall be equal to approved samples.

E. Submit two sets of actual samples for any item requiring color selection by Architect. Color charts shall show actual colors. Photo reproduction color charts are not acceptable.

014000 QUALITY CONTROL AND TESTING

A. Comply with manufacturers' instructions and specifications for storage and use of their products.

B. Comply with instruction in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from the Architect before proceeding.

C. When specified, require manufacturer to provide qualified personnel to observe field conditions; installation; quality of workmanship; to test, adjust and balance equipment, as applicable.

D. Where required by the Specifications, submit certificates to the Architect, executed by a responsible officer of the manufacturer, warranting that product meets or exceeds the requirements of the drawings and specifications.

E. When required by the Specifications, submit manufacturer's data sheets, including instruction and recommendations.

F. Material testing where required by specific section shall be performed and paid for by the Owner. Test results shall be mailed directly from the testing laboratory to the Architect and Engineers.

015110 TEMPORARY ELECTRICITY AND LIGHTING

A. The Contractor may use existing electrical service. Cost of electric service will be borne by the Owner. Provide all temporary wiring, lighting and devices in accordance with OSHA and Building Code Requirements.

015130 TEMPORARY HEATING

A. Not in Contract.

015140 TEMPORARY TELEPHONE

A. The Contractor must provide his own telephone(s).

015150 TEMPORARY WATER

A. The Contractor may use existing water service. The Contractor shall not waste water or use faulty equipment. The Contractor shall provide, at his own expense, all temporary connections, extensions and other apparatus required for use of such services. Upon completion of the Contract, the Contractor shall disconnect temporary extensions and return utility to its original condition.

015160 TEMPORARY SANITARY FACILITIES

A. The Contractor must provide his own temporary sanitary facilities.

015180 FIRE PROTECTION

A. No fire shall be used within structures for working purposes. No flammable material shall be stored in the structure in excess of amounts allowed by the authorities. No gasoline shall be stored in or close to the building at any time. The Contractor shall assign a responsible employee to be in charge of fire protection measures.

015200 CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to ensure convenience and safety in the execution of the Contract except where this is specified in any Specification Section. All such items shall comply with OSHA regulations and applicable codes, statutes, rules and regulations.

B. Staging, required for the execution of this Contract, shall be furnished, erected, relocated if necessary and removed by the General Contractor. Staging shall be maintained in a safe condition in compliance with OSHA regulations without charge to and for the use of all trades as needed.

015300 BARRIERS AND ENCLOSURES

A. Provide barriers to prevent public entry into construction areas and to protect existing facilities from damage by construction operations.

B. Provide barriers around trees and plants near construction operations. Protect against vehicular traffic, materials' dumping, chemically injurious materials, puddling or running water.

C. Provide temporary, insulated, weathertight closures at openings to the exterior to provide acceptable working conditions and protection for materials, and to prevent entry of unauthorized persons. No temporary enclosure shall be left overnight unless made secure from unauthorized entry.

D. Barriers and enclosures shall be in conformance with code requirements. Do not block egress from occupied portions of buildings unless necessary to further the work of the Contract. In this case, an alternate egress plan in conformance with the Building and Fire Code requirements must be provided by the Contractor.

015350 PROTECTION

A. Protect buildings, equipment, furnishings, grounds and plantings from damage. Any damage shall be repaired or otherwise made good at the Contractor's expense.

B. Provide protective coverings and barricades to prevent damage or physical injury. The Contractor shall be held responsible for, and must make good at his own expense, any water or other type of damage due to improper coverings. Protect the public and building personnel from injury.

C. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

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

015400 SECURITY

A. Provide security to protect work from unauthorized entry, vandalism and theft.

015500 TRAFFIC WAYS

A. Public highways shall not be blocked by standing trucks, parked cars, material storage, and construction operations or in any other manner.

B. Public roads shall be kept free from scrap or debris due to construction operations and any damage to their surface caused by the Contractor shall be repaired by him at his own expense.

015690 CLEANING

A. Maintain areas under Contractor's control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.

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

C. Periodically clean areas before start of surface finishing and continue cleaning on an as-needed basis.

D. Control cleaning operations so that dust and other particles will not adhere to wet or newly coated surfaces.

E. Remove waste materials, debris and rubbish from site daily and dispose of off-site. No scrap-debris shall remain inside the building or anywhere on site upon final acceptance of the project.

015900 FIELD OFFICES AND SHEDS

A. The Contractor must provide his own field office and storage sheds as part of the Contract. Space within the buildings may be used subject to the Owner's approval.

B. Clean and repair damage caused by use of temporary facilities. Restore existing facilities used during construction to specified or to original condition.

016000 MATERIALS AND EQUIPMENT

A. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock.

1. "Named Products" are items identified by manufacturer's product name, including make or model designation indicated in the manufacturer's product literature.

B. "Materials" are products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

C. "Equipment" is a product with operating parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

D. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.

1. When the Contractor has the option of selecting between two or more products, the product selected shall be compatible with products previously selected.

E. Nameplates: Except for required labels and operating data, do not attach manufacturer's nameplates or trademarks on surfaces exposed to view in occupied spaces or on the exterior.

F. Product Delivery, Storage, and Handling: Deliver store and handle products in accordance with manufacturer's recommendations, using methods that will prevent damage, deterioration and loss.

1. Schedule delivery to minimize long-term storage and prevent overcrowding construction spaces. Coordinate with installation to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

2. Deliver products in manufacturer's original sealed container or packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.

3. Inspect products on delivery to ensure compliance with Contract Documents, and to ensure that products are undamaged and properly protected.

4. Store products to facilitate inspection and measurement of quantity or counting of units. Store heavy materials away from the structure in a manner that will not endanger supporting construction.

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

G. Product Selection: Provide products that comply with the Contract Documents, are undamaged and unused at installation.

1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situation on other projects.

3. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.

4. Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.

   a. Where products are specified by name, accompanied by the term "or equal" comply with provisions for "substitutions" to obtain approval for use of an unnamed product.

5. Non-Proprietary Specifications: When Specifications list products or manufacturers that are available and may be used, but do not restrict the Contractor to use of these products only, the Contractor may propose any product

that complies with Contract requirements. Comply with provisions for "substitutions" to obtain approval for use of an unnamed product.

H. Descriptive Specification Requirements: Where Specifications describe a product, listing characteristics required, with or without use of a brand name, provide a product that provides the characteristics and otherwise complies with requirements.

1. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply and are recommended for the application. Manufacturer's recommendations may be contained in product literature, or by certification of performance.

2. Compliance with Standards: Where Specifications require compliance with a standard, select a product that complies with the standard specified.

3. Visual Matching: Where Specifications require matching a Sample, the Architect's decision on whether a proposed product matches is final. Where no product matches and complies with other requirements, comply with provisions for "substitutions" for selection of a matching product in another category.

4. Visual Selection: Where requirements include the phrase "…as selected from manufacturer's standard colors, patterns, textures…" or a similar phrase, submit a product that complies with other requirements. The Architect will select colors, patterns and textures from the product line submitted.

I. Installation of Products: Comply with manufacturer's instructions and recommendations for installation of products. Anchor each product securely in place, accurately located and aligned with other Work. Clean exposed surfaces and protect to ensure freedom from damage and deterioration at time of Substantial Completion.

016100 TRANSPORTATION AND HANDLING

A. Materials and equipment shall be delivered, stored and handled to prevent intrusion of foreign matter and damage by weather or breakage. Packaged materials shall be delivered and stored in original, unbroken packages.

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

C. Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Owner.

016200 PRODUCT SUBSTITUTIONS

A. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions." The following are not considered substitutions:

1. Substitutions requested during bidding period, and accepted prior to award of Contract.

2. Revisions to Contract Documents requested by the Owner or Architect.
3. Specified options or products and construction methods included in Contract Documents.
4. Compliance with governing regulations and orders issued by governing authorities.

B. Requests for substitutions must contain all information requested by the Architect before consideration.

1. Contractor must certify in writing that the substitution is equal to or better in every respect to that required by Contract Documents, and that it will perform adequately in application indicated. Include Contractor's waiver of rights to additional payment or time, that may be necessary because of the substitution's failure to perform adequately. Certification must include acknowledgement that the Contractor assumes all responsibility for operation, fit or other requirements of adjacent products.

C. Substitutions: The Contractor's substitution request will be received and considered by the Architect when one or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.

1. Extensive revisions to Contract Documents are not required.
2. Proposed changes are in keeping with the general intent of Contract Documents.
3. The request is timely, fully documented and properly submitted.
4. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
5. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate contractors, and similar considerations.

D. The Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

017000 PROJECT CLOSEOUT

A. Substantial Completion: Before requesting inspection for certification of Substantial Completion, complete the following:

1. In the Application for Payment that coincides with the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed substantially complete.

2. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
3. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar record information.
4. Change-over permanent locks and transmit keys to the Owner.
5. Complete start-up testing of systems, and instruction of the Owner's personnel. Remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
6. Complete final clean up. Touch-up and repair and restore marred exposed finishes.

B. Inspection Procedures: On receipt of a request for inspection, the Architect will proceed or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspections, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Architect will repeat inspection when requested and assured that the Work has been substantially completed.
2. Results of the completed inspection will form the basis of requirements for final acceptance.

C. Final Acceptance: Before requesting inspection for certification of final acceptance and final payment, complete the following:

1. Submit final payment request with releases.
2. Submit a final statement, accounting for changes to the Contract Sum.
3. Submit a copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.
4. Submit final meter reading s for utilities, a record of stored fuel, and similar data as of Substantial Completion.
5. Submit consent of surety to final payment.
6. Submit evidence of continuing insurance coverage complying with insurance requirements.

D. Reinspection Procedure: The Architect will reinspect the Work upon receipt of notice that the Work has been completed, except items whose completion has been delayed because of circumstances acceptable to the Architect.

1. Upon completion of reinspection, the Architect will prepare a certificate of final acceptance, or advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
2. If necessary, reinspection will be repeated.

E. Maintenance Manuals: Organize maintenance data into sets of manageable size. Bind in individual heavy-duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information. Mark identification on front and spine of each binder. Include the following information:

1. Emergency instructions.
2. Spare parts list.

3. Copies of warranties
4. Wiring diagrams.
5. Recommended “turn around” cycles.
6. Inspection procedures.
7. Shop Drawings and Product Data.
8. Fixture lamping schedule.

F. Operating and Maintenance Instructions: Arrange for the installer of equipment that requires regular maintenance to meet with the Owner’s personnel to provide instruction in proper operation and maintenance. Include a detailed review of the following:

1. Maintenance manuals.
2. Spare parts and materials.
3. Tools.
4. Lubricants.
5. Control sequences.
6. Hazards.
7. Warranties and bonds.
8. Maintenance agreements and similar continuing commitments.

G. As part of instruction for operating equipment, demonstrate the following procedures:

1. Start-up and shutdown.
2. Emergency operations.
3. Noise and vibration adjustments.
4. Safety procedures.

H. Final Cleaning: Employ experienced workers for final cleaning. Clean each surface to the condition expected in a commercial building cleaning and maintenance program. Complete the following before requesting inspection for certification of Substantial Completion.

1. Remove labels that are not permanent labels.
2. Clean transparent materials. Remove glazing compound. Replace chipped or broken glass.
3. Clean exposed, hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances.
4. Leave building clean and ready for occupancy. If the /contractor fails to clean up, the Owner may do so, and the cost will be charged to the Contractor.
5. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Remove waste materials from the site and dispose of in a lawful manner.

017100 PROJECT RECORD DOCUMENTS

A. The Contractor shall keep one copy of the Specifications, Drawings, Addenda, approved Shop Drawings, Change Orders, Schedules and Instructions in good order at the site and marked to record all changes made during construction. The documents shall be available to the Architect or his authorized representatives at all times.

B. Record Document Submittals: Do not use Record Documents for construction purposes; protect from loss in a secure location; provide access to Record Documents for the Architect's reference.

C. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark-up these drawings to show the actual installation. Mark whichever drawing is most capable of showing conditions accurately. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover.
2. Keep documents current; do not permanently conceal any work until required information has been recorded.

D. Record Specifications: Maintain one copy of the Project Manual, including addenda. Mark to show variations in actual Work performed in comparison with the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot be readily discerned later by direct observation. Note related record drawing information and Product Data.

E. Upon completion of the Work, submit record Drawings and Specifications to the Architect for the Owner's records.

017200 WARRANTIES

A. The Contractor shall guarantee all materials and workmanship for a period of one year from the date of acceptance of the work. In addition, the Contractor shall furnish the warranties listed below. Submit three (3) copies of each to the Architect.
1. 30 years Section 075323 EPDM Roofing Manufacturer's Warranty
2. 2 years Section 079200 Joint Sealants Special Installer's Warranty
3. 50 years Section 079200 Joint Sealants Special Manufacturer's Warranty
4. 10 years Section 084113 Aluminum Entrance and 20 years for finish. Manufacturer's Warranty
5. 10 years Section 085113 Aluminum Windows and 20 years for finish. Manufacturer's Warranty
6. 2 years Section 087111 Exit Devises. Manufacturer's Warranty.
7. 5 years Section 087111 Manual Closers. Manufacturer's Warranty

B. Submit certification that finish materials have fire rated finishes or treatment as specified.

C. Forms of Guarantees, Warranties:

1. Address to:

   Entity designated by Owner's Representative

2. Project Title and Number

3. I (We) hereby guaranty (or warranty) the work on the referenced project for a period of _____years from _____, 20__ against failures of workmanship and materials in accordance with the requirements of Section Page _____, Paragraph _____, of the Specifications.

1. Guarantees and warranties supplied by Subcontractors, Suppliers or Manufacturers shall be countersigned by the General Contractor.

018000 PROJECT SIGN

A. Provide1 project sign at the Town Hall site, the Library site and the Police Station site (total 3) of size stated and with lettering stipulated by Architect. Erect sign prior to beginning work. This sign shall be separate from any other project signs. No other signs are to be erected without the Town of Seymour's permission.

B. Materials:

Sign board: 4' X 8' X ¾" plywood – grade designation APA A-B EXT.
Supports: 4" X 4" No. 2 grade Southern Yellow Pine or Douglas Fir.

C. Sign layout will be provided by Architect.

END OF GENERAL REQUIREMENTS

ASBESTOS ABATEMENT SPECIFICATIONS
(EXTERIOR CAULKINGS)

SEYMOUR TOWN HALL
1 FIRST STREET
SEYMOUR, CT 06483

Prepared For:

Town of Seymour
1 First Street
Seymour, CT 06483

Prepared By:

FSS
Facility Support Services

2685 State Street
Hamden, Connecticut 06517

Michael DiFabio
CTDPH Project Designer #000329

May 15, 2017

FSS Project #: 20017

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

TECHNICAL SPECIFICATION

Division I	Section 01010	General Requirements
	Section 01016	Scheduling and Phasing
	Section 01026	Unit Prices
	Section 01700	Contract Closeout
Division II	Section 02080	Asbestos Abatement

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Contractor Qualifications.

B. Contractor Use of Site and Premises.

C. Work Sequence.

D. Owner's Operations.

E. Closeout and Punch List.

F. Cleaning.

G. Emergency Calls

1.2 CONTRACTOR QUALIFICATIONS

A. The Contractor selected must appear on the approved list of Asbestos Abatement Contractors on file at the State of Connecticut Department of Public Health (CTDPH). Only State-certified asbestos abatement supervisors and workers shall perform asbestos abatement work activities.

B. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos regulations pertaining to worker protection, removal, transport, or disposal.

C. The Contractor shall obtain and pay for all required permits, and prepare and file all original and amended local, state, and EPA pre-notification forms immediately following award of the work.

D. The Contractor shall conduct personal exposure air monitoring for airborne fibers as prescribed by OSHA during the project performance.

E. The Project Engineer reserves the right to award this Contract to the Contractor who best meets all contractor qualifications, project requirements and Owner's interests.

1.3 CONTRACTORS USE OF SITE AND PREMISES

A. Limit use of site and premises as follows:
   1. Owner occupancy.
   2. Use of site and premises by Owner.

B. Coordinate use of the premises, including use of parking lots and restroom facilities under direction of the Project Engineer.

C. Coordinate use of scaffolding to be erected by firms licensed and properly trained to conduct that work. The costs of the scaffolding shall be included in the Contractors pricing.

D. Assume full responsibility for protection and safekeeping of products under this Contract.

1.4 WORK SEQUENCE

A. Work must be performed to accommodate Owner's and Project Engineer's requirements. Coordinate abatement schedule and operations with the Owner and Project Engineer. Re-occupancy by owner and other trades shall occur following completion of work by the Contractor and successful visual clearance by the Consultant.

B. The Owner may occupy the building for their normal activities during the Work. The Contractor is responsible for creating a plan to accommodate Owner occupancy needs. The work area must be isolated and separated from the occupied portion of the building by an airtight layer of six mil polyethylene sheeting with asbestos warning signs posted on the occupied side.

1.5 OWNER'S OPERATIONS

A. Schedule the Work to accommodate this requirement.

B. Maintain means of egress.

C. Coordinate Work with the Owner and Project Engineer.

D. Maintain the fire alarm/smoke detection systems at all times when the building is occupied during work.

E. Maintain a permanent means of egress during construction. Provide and maintain a temporary means of egress as required by the Fire Marshall.

1.6 INSPECTIONS

A. The Contractor shall carefully check his/her own work and that of any Subcontractor as the work is being performed. Unsatisfactory work shall be corrected immediately.

B. The Consultant shall not be expected to inspect any area more than once. If, during an inspection, the Consultant discovers five (5) or more deficient conditions, then the area shall be declared "Not Ready" for Inspection.

C. All inspections and sampling required for asbestos abatement compliance will be performed by the Consultant.

1.7 CLEANING

A. Throughout the abatement period, the Contractor shall maintain the building and site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such materials from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste as required by the most current federal, state, and local regulations and the requirements of the specifications.

1.8 EMERGENCY CALLS

A. The Contractor shall provide Project Engineer and the Consultant with a telephone number where the Contractor or Contractor's Representative can be reached during non-working hours.

B. At the direction of a duly authorized representative of the Owner, the Contractor may be required to dispatch all necessary personnel and equipment to any point on the work site to clear obstructions or make safe any conditions deemed necessary by Project Engineer or Consultant.

1.9 ADDITIONAL GENERAL REQUIREMENTS

B. The Abatement Contractor shall employ an English-speaking competent Asbestos Abatement Supervisor with at least three (3) years experience on projects of similar scope and magnitude who shall be responsible for all work involving asbestos abatement as described in the Specifications and defined in the applicable regulations, and have full-time daily supervision of the same. The Supervisor shall be the "Competent Person" as defined by OSHA regulations. The Contractor shall provide, on-site, at least one English-speaking foreman at all times when work is in progress. The supervisor and foreman must be thoroughly experienced in asbestos-containing materials removal work, knowledgeable of all applicable federal, state, and local regulations and capable of skillfully executing all work promptly, efficiently and in compliance with all requirements of these specifications. Project

Engineer reserves the right to have any supervisory or foreman personnel removed from the project if they do not demonstrate the requisite qualifications.

C. The Contractor shall allow work performed under this contract to be inspected, if required, by local, state, federal, and any other authorities having jurisdiction over such work. The Contractor shall immediately notify Project Engineer and shall maintain written evidence of such inspection for review by Project Engineer and Consultant.

D. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.

E. The Contractor shall immediately notify Project Engineer of the delivery of all permits, licenses, certificates of inspection, approval or occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of to who issued, and shall cause them to be displayed to Project Engineer for verification and recording.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. A Pre-Abatement Meeting shall be scheduled by Project Engineer and must be attended by the Contractor and any Sub-Contractors.

B. The Contractor shall present a working schedule at the Pre-Abatement Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and Project Engineer will inform the Contractor of additions or changes in the scheduling requirements for the project.

C. As a result of the Pre-Abatement Meeting, the Contractor shall submit a revised schedule no later than three days following the Pre-Construction Meeting. Upon approval from Project Engineer, the Contractor will receive a "Notice to Proceed" with the work of the Contract.

D. Refer to all other applicable sections of the specification for coordination with other trades. The Contractor shall coordinate work with all other activities at this occupied site.

1.2 TIME FOR COMPLETION AND WORKING HOURS

A. Upon award of contract from Project Engineer, the Contractor shall immediately order materials, supplies, and components for the work of this project.

B. The Contractor shall begin the work immediately upon receipt of the written "Notice to Proceed" from Project Engineer. The date of the commencement of the work is termed the "Abatement Start Date." The Contractor will be required to complete all work of this Contract within the time period stipulated in the finalized schedule. The last day in the schedule is termed as "Contract Completion Date".

C. If conditions arise that are beyond the control of the Contractor and force delays in the performance of the Work, Project Engineer shall immediately be notified. The Contractor shall state the reason for the delay and shall estimate the expected duration of the delay. Any application for an extension of the Contract completion date shall be made under proper change order procedures. The acceptance of the cause for delay and change order is subject to Project Engineer's review and approval.

D. Work hours will be established in coordination with Project Engineer and Owner.

E. Any extra hours or days per week worked by the Contractor or Sub-Contractors shall be at no extra cost to the Owner. Denial of extra hours or days per week by Owner shall not be grounds for extra time allotted to the overall Contract time.

F. At the Pre-Abatement Meeting, Project Engineer, the Contractor, and the Consultant will meet and define a project work schedule to which the Contractor will be bound. Any change in the work schedule subsequent to the pre-abatement meeting must be approved by Project Engineer.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

A. A unit price is an amount proposed by the Contractor and stated on the proposal as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the project Scope of Work is altered.

B. Unit prices include material, any direct or indirect expenses of the Contractor or Sub-Contractor, profit, insurance, bonding, and any applicable taxes. The same unit price shall apply whether the work is added or deducted.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 01700 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 FINAL CLEANING

A. Unless otherwise specified under Sections of this Specification, the Contractor shall perform final cleaning operations specified prior to final inspection.

B. Maintain the project site free from accumulations of waste, debris and rubbish caused by operations. At the completion of the work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave the project clean and ready for work of others under separate contract.

C. Cleaning shall include all surfaces, interior and exterior, in which the Contractor has had access.

D. Use only those materials that will not create hazards to health or property.

1.3 ABATEMENT CLOSEOUT DOCUMENTS

A. Submit to Project Engineer, final completed copies of the Waste Shipment Records, signed by all transporters and the designated disposal site owner/operator.

B. Submit to Project Engineer and the Consultant, copies of all notifications & permits, and all worker certifications (certificates, training, medical, and fit-test).

C. If requested, submit to the Consultant copies of all personal air monitoring results.

D. The Contractor must be able to provide Certified Payroll documentation to the governing party upon formal request.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

DIVISION II

SPECIAL CONDITIONS

FOREWORD

Supplementing Division I of the Specifications for the work to be performed under this Contract, DIVISION II, SPECIAL CONDITIONS, shall apply particularly to this Contract.

The enforcement of the requirements of any of the Special Conditions shall not be construed as waiving any of the rights of the Owner and/or Project Engineer, contained in any of the other provisions of the Contract.

The Contract documents, including without limitation, these Special Conditions, shall be interpreted and construed as far as is reasonably possible to be in addition to, supplementary to and consistent with each other.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. General Provisions of Contract, including Supplementary Conditions and other Division 1 Sections, apply to this Section.

B. Refer to other Sections of these Specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.

1.2 SCOPE OF WORK

A. Work outlined in this section includes all that is necessary for the complete removal and disposal of asbestos-containing and asbestos-contaminated materials (ACM) identified in the areas as detailed below for the Seymour Town Hall located at 1 First Street, Seymour, CT. The quantities given below are provided to establish the order of magnitude of the abatement project. Actual quantities may vary. The Contractor is responsible for verification of all quantities of ACM scheduled for removal. This verification shall include an on-site walk-through inspection of the work area.

B. Coordinate this section with other Sections of these Specifications for actual quantities of work required. Location, estimated quantities, and abatement phasing plan of specific items noted in paragraph A above include:

TABLE 1: LIST OF ACMs
Seymour Town Hall
1 First Street, Seymour, CT

MATERIAL	LOCATION	ESTIMATED QUANTITY
Exterior Window Caulking	Perimeter of window Casings Upper and Lower Level Windows (1966 Building Portion)	13 @ 9'x6' (390 LF) 2 @ 7'x5' (48 LF) 1 @ 4'x3' (14 LF) 3 @ 5'x5' (60 LF) 2 @ 4'x5' (36 LF) 2 @ 4'x2' (24 LF) Note: the exact amount of window caulking to abate will be determined during the pre-bid walkthrough.
Exterior Door Frame/Case Caulking	Perimeter of door casing (1966 Building Portion)	East ~ 45LF South ~ 22LF Note: the exact amount of door frame/case caulking to abate will be determined during the pre-bid walkthrough.
Exterior Window Sill Caulking	Caulking around window sill	13 @ ~ 7' (91 LF) 7 @ ~ 6' (42 LF) 1 @ ~ 4' (4 LF) 2 @ ~ 3' (3 LF) Note: the exact amount of window sill caulking to abate will be determined during the pre-bid walkthrough.

Note: LF = Linear Feet, SF = Square Feet

1.3 DEFINITIONS

The following definitions relative to asbestos abatement apply:

1. ABATEMENT - Procedures to control fiber releases from asbestos containing materials; includes removal, encapsulation, and enclosure.

2. AIR MONITORING - The process of measuring the airborne fiber concentration within an area or within a person's breathing zone.

3. AMENDED WATER - Water to which a surfactant has been added.

4. ASBESTOS - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically altered.

5. ASBESTOS PROJECT MONITOR (APM) - A professional capable of conducting air monitoring and analysis of samples for airborne fiber concentrations. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.

6. ASBESTOS WORK AREA - A regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos abatement operations are performed which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

7. ASBESTOS FELT - A product made by saturating felted asbestos with asphalt or other suitable binder, such as a synthetic elastomer.

8. ASBESTOS FIBERS - Those asbestos particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.

9. ASPHALT SHINGLES, COMPOSITION SHINGLES OR STRIP SLATES - (Pitched Roof Shingle): a roofing material manufactured by saturating a dry felt with asphalt then coating the saturated felt with a harder asphalt mixed with a fine mineral, glass fiber, asbestos or organic stabilizer. All or part of the weather side may be covered with mineral granules, or with powdered talc or mica.

10. BASE FLASHING (ROOF) - The flashing provided by upturned edges of a watertight membrane on a roof. May contain metal and associated waterproofing material or combination of roofing felts and waterproofing at the joint between a roofing surface and a vertical surface such as a wall or parapet. Also base flashing may be present at perimeter of completely flat roofing.

11. BUILT-UP ROOFING - Composition Roofing, Felt and Gravel Roofing, Gravel Roofing) - a continuous roof covering made up of laminations or plies of saturated or coated roofing felts, alternated with layers of asphalt or coal-tar pitch and surfaced with gravel, paint or finish coat.

12. CAULKING - Resilient mastic compound often having a silicone bituminous or rubber base. Used to seal cracks, fill joints and prevent leakage. Typical applications: around windows and doors, at joints between two dissimilar materials. (i.e. masonry to wood, masonry to steel etc.).

13. CLEAN ROOM - An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

14. CLEARANCE SAMPLING - Final air sampling performed aggressively after the completion of the abatement project in a regulated area. Clearance sampling can be conducted by either of the following two methods:

    (A) Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM).

    (B) Five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).

15. COMPETENT PERSON - As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. In addition has authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with Environmental Protection Agency's (EPA) Model Accreditation Plan.

16. CURTAINED DOORWAY - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.

17. DAMP PROOFING - Application of a water impervious material to surface such as wall to prevent penetration of moisture, typically at foundation or below grade surface.

18. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

19. ENCAPSULANT - A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

20. EQUIPMENT ROOM - Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

21. FIXED OBJECT - Unit of equipment or furniture in the work areas that cannot be removed from the work area.

22. FRIABLE ASBESTOS MATERIALS - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.

23. GLAZING COMPOUND - any compound used to hold window glass in place, also referred to as putty, or glaziers' putty. Is not field-applied, usually installed during manufacture of windows.

24. GLOVE BAG - A manufactured polyethylene bag type of enclosure with built-in gloves such as is placed with an airtight seal around asbestos-containing material and which permits the asbestos-containing materials contained by the bag to be removed without releasing asbestos fibers to the atmosphere. The use of glove bag is permitted for removal and repair of small amount (less than 3 linear feet/3 square feet) of ACM.

25. HEPA FILTER - High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2-1979.

26. HEPA VACUUM EQUIPMENT - Vacuum equipment equipped with a HEPA filter system for filtering the effluent air from the unit.

27. MOVABLE OBJECT - Unit of equipment or furniture in the work area that can be removed from the work area.

28. NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust ventilation system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

29. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.

30. PERMISSIBLE EXPOSURE LEVEL (PEL) - The average airborne concentration of asbestos fibers to which an employee is allowed to be exposed over an eight-hour period. The PEL established by OSHA 29 CFR 1926.1101 is 0.1 fibers per cubic centimeter of air averaged over an eight-hour time period. An airborne fiber concentration of 1.0 fibers /cc averaged over a sampling period of 30 minutes is the Excursion Limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.

31. REGULATED AREA - An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos fibers may exceed the PEL.

32. SHOWER ROOM - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

1.4 SUBMITTALS

A. The Contractor shall submit the following to Project Engineer/Consultant prior to the pre-abatement meeting:

1. Evidence that the Contractor is certified to perform asbestos abatement work in the State of Connecticut.
2. Schedule to Project Engineer and the Consultant, which defines a timetable for executing and completing the project, including set-up, removal, cleanup, decontamination, and air clearance monitoring.
4. Connecticut certificate of training (both initial and current refresher), current respirator fit test records, and current medical records for each employee who may be on the project site. Effective June 4, 2000, no individual shall provide services as an asbestos abatement site supervisor or as an asbestos abatement worker without a certificate to do so issued by the CTDPH.

B. The following shall be submitted to Project Engineer at the completion of work:

1. Signed copy of the Certificate of Workers Acknowledgment found at the end of this section for each worker who is to be at job site.
2. Regulated area access logs.
3. Completed copies of Waste Shipment Records (WSR).

1.5 REGULATIONS AND STANDARDS

A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos abatement. Specifically, the Contractor shall comply with the requirements of the following:

1. U.S. Environmental Protection Agency (USEPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) Regulations (40 CFR 61, Subpart M)
2. USEPA Asbestos-Containing Materials in Schools Regulations (40 CFR Part 763, Final Rule and Notices)
3. Occupational Safety and Health Administration (OSHA) Asbestos Regulations (29 CFR 1910.1001 and 1926.1101)
4. State of Connecticut Department of Public Health (CTDPH) Standards for Asbestos Abatement Sections 19a-332a-1 through 19a-332a-16 inclusive and Sections 20-440-1 through 20-440-9 inclusive
5. State of Connecticut Department of Environmental Protection (CTDEP) Regulations, Section 22a-209-8(i) and Section 22a-220 of the Connecticut General Statute.
6. Connecticut Basic Building Code (BOCA)
7. National Fire Protection Association (NFPA) Life Safety Code
8. Local health and safety codes, ordinances or regulations pertaining to asbestos abatement and all national codes and standards including Association for Standards of Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL).
9. Occupational Safety and Health Administration (OSHA) (29 CFR 1910 Subpart D) and (29 CFR 1926 Subpart M) Fall Protection.

1.6 EXEMPTIONS

A. Any deviations from these Specifications require the written approval and authorization from Project Engineer and the Consultant.

B. Any deviation in the applicable work practices identified in CTDPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-23, Sections 20-440-1 to 20-440-9, Section 20-441, and Section 19a-332e-1 to 19a-332e-2, must be requested in writing and approved in writing by the CTDPH.

1.7 FINAL VISUAL INSPECTION

A. Following the completion of the final cleaning phase of the work in a contained work area, the Consultant shall conduct a final visual inspection of the area. The Contractor shall be responsible for meeting final visual criteria, which is the absence of visible debris, as specified in CTDPH regulation 19a-332a-12(b).

1.8 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

A. The Contractor shall make the following notifications and provide submittals to the following agencies prior to the commencement of removal work. This notification is required ten (10) calendar days prior to the start of the abatement project:

1. State of Connecticut
   Department of Public Health
   Indoor Air Program
   410 Capitol Avenue
   P.O. Box 340308
   Hartford, CT 06134-0308

   Note: Satisfies the requirement to notify the EPA (except when the amount of ACM to be abated is less than 10 linear/25 square feet or when the work involves demolition with zero asbestos. EPA needs to be notified directly in those situations)

2. State of Connecticut
   Department of Environmental Protection
   Health Services and Solid Waste Management Unit
   165 Capital Avenue
   Hartford, CT 06106
   (Only if asbestos waste is disposed of in Connecticut)

B. The minimum information included in the notification to these agencies includes:

1. Name and address of site owner/operator.
2. Site location.
3. Amount of friable and non-friable asbestos-containing materials to be removed.
4. Work schedule, including proposed start and completion dates.
5. Asbestos removal procedures to be used.
6. Name and location of disposal site for generated asbestos waste, residue, and debris.

1.9 WORK SITE SAFETY PLAN

A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:

1. Evacuation of injured workers.
2. Emergency and fire exit routes from all work areas.
3. Emergency first aid treatment.
4. Local telephone numbers for emergency services including ambulance, fire, and police.
5. Methods to notify appropriate personnel in the event of a fire or other emergency requiring evacuation of the site or area.
6. Site safety plan for fall protection.

B. The Contractor is responsible for training all workers in these procedures.

1.10 CONTROL OVER REMOVAL WORK

A. At the discretion of the Project Engineer, all work procedures shall be continuously monitored by the Consultant’s Asbestos Project Monitor (APM) to determine that areas outside the designated work area(s) have not been contaminated.

B. Prior to work on any given day, the Contractor's designated "Competent Person" shall discuss the day's work schedule with the APM to evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination outside the work area. This includes a visual survey of the work area(s) and the decontamination enclosure systems.

C. The Contractor shall maintain control of and be responsible for access to all work areas to ensure the following requirements:

1. Non-essential personnel are prohibited from entering the area.

2. All authorized personnel entering the work area shall read the "Worker Protection Procedures" which are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing.
3. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated.
4. Asbestos waste that is taken out of the work area must be properly bagged and labeled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos waste leaving the enclosure system must be immediately transported off site or immediately placed in locked, posted temporary storage on site, and removed within 24 hours of the project conclusion. The Contractor will seek permission of the Owner to place a temporary dumpster at a suitable location on-site.
5. Any material, equipment, or supplies that are brought out of the decontamination enclosure system shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

1.11 PROPER WORKER PROTECTION

A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

B. All workers are to be accredited and certified as Asbestos Abatement Workers as required by the CTDPH.

C. The Contractor is required to be certified, accredited, and licensed as required by the CTDPH.

D. In accordance with 29 CFR 1926.1101, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include but is not limited to the following:

1. Methods of recognizing asbestos.
2. Health effects associated with asbestos.
3. Relationship between smoking and asbestos in producing lung cancer.
4. Nature of operations that could result in exposure to asbestos.
5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
    a. Engineering controls
    b. Work practices
    c. Respirators
    d. Housekeeping procedures
    e. Hygiene facilities

f. Protective clothing
g. Decontamination procedures
h. Emergency procedures
i. Waste disposal procedures

6. Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134.
7. Appropriate work practices for the work.
8. Requirements of medical surveillance program.
9. Review of 29 CFR 1926.
10. Pressure differential systems.
11. Work practices including hands on or on-job training.
12. Personal Decontamination procedures.
13. Air monitoring, personal and area.

E. The Contractor shall provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an eight-hour Time Weighted Average (TWA). In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area for any reason. Examination shall at a minimum meet OSHA requirements as set forth in 29 CFR 1926.1101. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

F. Submit the following to the Consultant for review. The Contractor shall not start work until the Consultant reviews the submittals and indicates that they are acceptable.

1. Certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each Asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.
2. Evidence that the Contractor is certified to perform asbestos abatement work by the State of Connecticut Department of Public Health.
3. An original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.
4. Documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
   a. Name and Social Security Number.
   b. Physicians Written Opinion from examining physician including at a minimum the following:
      1) Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.

2) Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

3) Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

5. A statement that the worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat/cold stress in the worker.

1.12 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

A. The Contractor shall be responsible for monitoring airborne asbestos fiber concentrations in the workers' breathing zones and to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001, and 1926.1101.

B. The Contractor's air sampling procedures shall ensure proper documentation of all personal air-sampling results. Documentation for personal sampling must be available at the job site for review by federal and/or state regulatory agencies.

C. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101. The flow rate for air samples will not be less than 0.5 liters/minute and must not exceed 2.5 liters/minute.

1.13 RESTRICTIONS ON CONTRACTOR'S USE OF GROUNDS

A. The Contractor shall confine his/her operations to the actual work site, access routes and storage areas designated by the Owner. The Contractor may place a dumpster at a location designated by the Owner.

B. The Contractor shall have sole responsibility for providing all materials, equipment, or tools and any storage required shall be at the Contractor's own risk. The Owner will not assume responsibility for any loss of materials, equipment, or tools stored on its property.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.

B. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.

C. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to the job site with factory label indicating 4 or 6 mil thickness or greater.

D. Polyethylene disposable bags shall be six (6) mil thick with pre-printed labels.

E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

F. Surfactant (wetting agent), shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one (1) ounce surfactant to five (5) gallons of water or as directed by manufacturer.

G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant found acceptable to Consultant. Usage shall be in accordance with manufacturer's printed technical data.

H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas where asbestos is present.

I. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with OSHA Standard 29 CFR 1926.1101) Containers must be both air and watertight.

J. Labels and signs, as required by OSHA Standard 29 CFR 1926.1101 will be used.

K. Encapsulant shall be bridging or penetrating type which has been found acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

2.2 TOOLS AND EQUIPMENT

A. The Contractor shall provide all tools and equipment necessary for asbestos removal.

B. The Contractor's air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personal exposure monitoring per OSHA requirements.

C. The Contractor shall have available sufficient inventory of dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape and air filters.

D. The Contractor shall have available power cables or power sources such as generators (where required).

E. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of at least 0.02 inches of water column within each enclosure with respect to outside areas. Equipment shall be checked for proper operation by smoke tubes or differential pressure gauge before the start of each shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside, nor shall filtered air units be exhausted indoors from the work area.

F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at lead 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

G. The Contractor will have reserve units so that the exhaust air filtration system will operate continuously, where applicable.

2.3 ELECTRICAL

A. All electrical installations shall be accomplished under the direction of a Licensed Electrician.

B. The Contractor shall furnish and install a portable ground fault circuit interrupter (GFCI) Power Supply Board and receptacles including the following:

1. All circuits individually GFCI-protected.

2. Weatherproof enclosure NEMA 3 (rain-tight) with receptacle covers.

3. Construction durable, 16-gauge steel construction.

4. At least two 20-amp circuits (for APM).

5. Main circuit breaker.

6. Components UL listed.

C. The Decontamination Facility shall be furnished with a power supply board with one 20-amp circuit for the APM.

D. The Contractor shall furnish and install wiring as follows:

1. Each 20-amp circuit provided for the APM shall have one run of 20-amp duplex outlets (watertight) each on 100 feet of No. 12 SO cord.

2. Size the wire to limit voltage drop to a maximum of 3% with length of run.

E. The Contractor will supply temporary lighting for all abatement work areas, if needed.

F. The Contractor will de-energize, lockout, and tag existing electrical components within the work area at their closest main source, if applicable.

G. Electrical power may be supplied by the Owner at the Owners' discretion.

PART 3 - EXECUTION

3.1 PRE-ABATEMENT MEETING

A. Prior to the start of work, a Pre-Abatement Meeting will be scheduled and must be attended by the Contractor and any Sub-Contractors. The assigned Contractor/Sub-Contractor's Site Supervisor is also required to attend this meeting.

B. A detailed project schedule and all required project submittals shall be presented by the Contractor at the Pre-Abatement Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the Contractor of any scheduling adjustments for this project.

C. Following the Pre-Abatement Meeting, the Contractor shall submit a revised schedule (if needed) no later than three days following the meeting. Upon approval by the Project Engineer, the Contractor will receive a "Notice to Proceed" with the work of the Contract.

3.2 WORKER PROTECTION

A. General:

1. All asbestos abatement work shall be performed in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101 and State of Connecticut regulations as specified herein. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, drinking, chewing gum, or applying cosmetics shall not be permitted in the asbestos regulated area. Personnel of other trades not engaged in the abatement of asbestos shall not be allowed in the regulated area unless all the personnel protection provisions of this Specification are complied with by the trade personnel.

2. Engineering controls shall be used to minimize airborne fiber concentrations within the work area. A combination of personal protective equipment and work practices shall also be used to further reduce employee exposure to asbestos fibers.

3. The Contractor shall provide all authorized visitors with protective clothing, headgear, and eye protection as in the procedures described herein and afford them the use of all facilities to keep them free of contamination from asbestos fibers.

4. The Contractor shall provide the decontamination facility for worker and equipment decontamination as well as the results of the personal air monitoring.

B. Respiratory Protection:

1. The Contractor shall select and provide at no cost to his/her employees respirators, which shall provide adequate protection to the employee as specified by Section 1910.1001(g) Table D-1 and Section 1926.1101(h) Table D-4.

2. Respiratory protection shall be worn by all persons potentially exposed to elevated airborne concentrations of asbestos fibers from the initiation of the asbestos abatement project until all areas have been given clearance. Clearance shall be obtained by visual observation conducted by the APM.

3. At a minimum, the Contractor shall provide half-face air-purifying respirators to all workers at the job site. If it is established, through collection and analysis of personal air samples in accordance with the OSHA Reference Method (ORM) (See U.S. Department of Labor; Occupational Safety and Health Administration; Occupational Exposure to Asbestos; Title 29 CFR 1910.1001, "General Industry Standard." Title 29 CFR 1926.1101, "Construction Standard") that this respiratory protection is inadequate, the Contractor will provide Powered Air Purifying Respirators or Type C (continuous flow or pressure demand) supplied air respirators.

a. Once the exposure limits have been established, the respirators presented in 29 CFR 1910.1001 that afford adequate protection at such upper concentrations of airborne asbestos fibers shall be used.

b. The minimum personal sampling period shall be seven hours at a flow rate of 0.5 to 2.5 liters per minute. The samples shall be collected within the workers' breathing zone. Personal sampling shall be the responsibility of the Contractor. Personal sampling results shall be available on site no later than 24 hours after sampling.

c. The filters provided for both the cartridge respirators and the PAPR's shall be National Institute for Occupational Safety and Health (NIOSH) approved for asbestos fibers.

C. Protective Clothing:

1. The Contractor shall provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls, head covers, and 18-inch high boot type covers or reusable footwear.

2. The Contractor shall provide eye protection and hard hats, as required, by job conditions and safety regulations.

3. Reusable footwear, hard hats and eye protection devices shall be cleaned at the end of each work day.

4. Upon completion of asbestos abatement work, the footwear shall be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from work area or from equipment and access area.

5. All disposable protective clothing shall be discarded and disposed of as asbestos waste when the wearer exits from the regulated area.

D. Decontamination Procedures:

1. Each worker and authorized visitor without exception shall, upon entering the job site: put on an appropriate respirator with new filters, and 2 layers of clean disposable protective clothing before entering the regulated area.

2. Each time he/she leaves the work area, each worker and authorized visitor shall:

a. Vacuum gross contamination from clothing before leaving the work area.

b. Proceed to the perimeter of the regulated area.

c. Still wearing the respirator, remove outer disposable coveralls.

d. Exit regulated area and remove remaining disposable coveralls.

e. Remove respirator filters, wet them, and dispose of filters in the container provided for that purpose.

f. Wash and rinse the inside of the respirator.

3. Contaminated protective clothing shall be placed in receptacles for disposal with other asbestos-contaminated materials.

3.3 WORK AREA PREPARATION

A. Where necessary, within regulated areas, shut down electrical power, including receptacles and light fixtures. Under no circumstances during the abatement process will existing lighting fixtures inside the regulated area be permitted to be operating. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes and by a licensed electrician.

B. During the work, vents within the regulated area shall be sealed with duct tape and 6 mil polyethylene sheeting.

C. Seal off all openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, A/C units, and any other penetration of the work areas, with polyethylene sheeting a minimum of 6 mil thick, sealed with duct tape.

D. The Owner may occupy portions of the building for their normal activities during the Work. The Contractor is responsible for creating a plan to accommodate Owner occupancy needs and remaining construction/renovation work. The work area must be isolated and separated from the occupied portion of the building by an airtight layer of six mil polyethylene sheeting with asbestos warning signs posted on the occupied side.

E. The Contractor shall remove moveable objects within the proposed work area to the extent possible before the work starts.

F. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.

G. Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.

H. After HEPA vacuum cleaning, work area enclosure shall be constructed of a minimum of 2 layers of 4 mil polyethylene sheeting on the walls to the decking.

3.4 MAINTENANCE OF THE WORK AREA

A. Acceptance of Asbestos Control Area: The Contractor shall not begin removal until authorized by the APM. The control area must be constructed, barriers properly constructed, openings sealed, and other preparations made to allow the removal operation to proceed. If conditions are not acceptable, the Contractor shall correct deficiencies to comply with the specifications.

3.5 ASBESTOS REMOVAL PROCEDURE - GENERAL

A. The Contractor shall have a designated "Competent Person" on the job at all times to ensure establishment of a proper enclosure system and proper work practices throughout project.

B. Abatement work will not commence until authorized by on-site APM.

C. Spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operation. The Consultant shall pre-approve the use of amended water as the wetting agent.

D. In order to maintain indoor airborne asbestos fiber concentrations to the minimum, the wet asbestos must be removed in manageable sections.

E. Fill disposal containers as removal proceeds, seal filled containers and clean containers before removal to equipment decontamination system. Wet clean each container thoroughly, double bag and apply caution label. Ensure that workers do not exit the work area thorough the equipment decontamination enclosure.

F. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped, and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.

G. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. During cleanup, utilize brooms, rubber dustpan, and rubber squeegees.

H. Sealed disposal containers, and all equipment used in the work area, shall be included in the cleanup and shall be removed from work areas via the equipment decontamination enclosure at an appropriate time in the cleaning sequence. All asbestos waste shall be placed in 6-mil polyethylene disposal bags and shall be double bagged in the equipment decontamination enclosure before removal from the site.

I. At any time during asbestos removal, should the APM suspect contamination of areas outside the work area(s), he/she shall cause all abatement work to stop until the Contractor takes steps to decontaminate these areas and eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections certify decontamination.

J. After completion of the initial final cleaning procedure, which includes removal of the inner layer of six (6) mil polyethylene sheeting, but prior to encapsulation, a pre-sealant inspection shall be conducted by the Consultant. The pre-sealant inspection shall verify that ACM and residual dust has been removed from the work area.

3.6 ASBESTOS REMOVAL PROCEDURE – EXTERIOR CAULKINGS

A. The Contractor shall establish a regulated area around the perimeter of the work area. Only properly trained and licensed persons shall be permitted to enter this area.

B. Prior to beginning the removal of any ACMs, remove all movable objects from the work area.

C. One layer of 6-mil polyethylene sheeting shall be installed below the area where removal is taking place to act as a drop cloth.

D. Remove exterior caulking materials using the following procedure:

1. Wet the caulking with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for amended water, removal encapsulant, or detergent solution to absorb prior to removal.
2. Keep caulking materials continuously wet throughout removal operation.
3. Remove caulking materials using a manual spade or stripping device. Continuously area with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet.

E. Debris and Waste

1. Pick waste debris created immediately.
2. Place debris into labeled disposal bags.
3. Place bagged waste in a second labeled disposal bag and dispose of as asbestos waste.

F. Exterior caulking materials must be removed intact and placed into a labeled container for disposal. Do not allow caulking that is removed from elevated locations to fall to the ground. If debris cannot be prevented from falling to ground, an enclosure must be utilized that will ensure no visible emissions are generated.

G. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

H. After completion of all removal work the Contractor shall conduct final cleaning.

3.7 CONSULTANT AND SUSPENSION OF WORK

A. The Consultant will also act as the APM for the project.

B. The removal work shall be reviewed by the Consultant. The Contractor will request an inspection at least 24hrs in advance of requiring the inspection.

C. During the progress of the work, the Consultant, following approval by the Project Engineer, shall have the right to make any changes, alterations, additions or omissions in the work or Specifications in accordance with the General Conditions.

D. The Consultant will recommend that the Project Engineer order a suspension of work based on a determination of risk of adverse health and safety impacts on the environment, workers, or the general public, or failure to comply with the Specifications/regulations. The Contractor and the Project Engineer will be notified in writing of the reason and of the recommended resolution.

E. The Consultant will provide oversight and visual inspection services throughout the Contract's duration. It shall be the Contractor's responsibility to comply with pertinent work standards and regulations.

F. The Consultant will conduct visual observations and perform inspections in work areas for evaluating that the work areas remain properly secured and isolated and specified work items are properly completed. Upon completion of work in a defined work area, the Consultant will conduct a final visual inspection for the purpose of evaluating work completion. Unsatisfactory conditions shall be immediately corrected in a manner specified by the Consultant and the contract documents. Final payments shall be approved only after the Consultant receives all properly completed Waste Shipment Record Forms and other required documentation and records.

3.8 CONSULTANTS' AIR SAMPLING RESPONSIBILITIES

A. Air sampling shall be conducted by the Consultant to ascertain the integrity of controls that protect the building from asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

B. Consultant's APM shall collect and analyze air samples during the following time periods:

1. Pre-Abatement Period: The APM may collect samples prior to abatement work to establish baseline readings. These samples will be collected in and around the proposed work area.
2. Abatement Period: The APM may collect samples on a daily basis during the work period. A sufficient number of area samples shall be taken outside of the work area and outside of the building to judge the degree of cleanliness or contamination of the building during removal. Additional samples may be collected at the discretion of the APM.
3. Post-Abatement Period: Not Applicable.

C. The APM shall provide ongoing evaluation of the air quality within the building during removal, using his/her best professional judgments with respect to the State of Connecticut Department of Public Health guideline of 0.010 fibers/cc and the background air quality established during the pre-abatement period.

D. If the APM determines that the building air quality has become contaminated from the project, he/she shall immediately inform the Contractor to cease all removal operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of the areas of the building designated by the Consultant. No further removal work can take place until the APM has assessed that the building air has been decontaminated.

E. Pre-abatement and during abatement air samples shall be collected as required to obtain a volume of 1,200 liters (if feasible). Samples shall be analyzed by PCM methodology using the NIOSH 7400 protocol.

3.9 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. Inspections shall be conducted by the APM throughout the progress of the abatement project. Inspections shall be conducted in order to document the progress of the abatement work as well as the procedures and practices employed by the Contractor.

B. The APM shall perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the Contractor. The APM shall be informed sufficiently in advance of the time the inspection is needed. During the course of the pre-commencement inspection, the APM shall inspect the containment and surrounding work areas. This shall include, but not be limited to, inspection of barrier integrity, utilization of power sources, and location and capacity of negative air filtration devices. If, during the course of the pre-commencement inspection, deficiencies are found, the Contractor shall perform the necessary adjustments in order to obtain compliance.

2. Work Area Inspections. Work area inspections may be conducted on a daily basis at the discretion of the Project Engineer/Consultant. During the course of the work inspections, the APM shall observe the Contractor's removal procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

3. Final Visual Inspection. An inspection for each work area shall be conducted by the APM upon the request of the Contractor. The inspection shall be conducted after completion of the final cleaning procedures. The inspection shall verify that no visible ACM or residual debris remain in the work area. If, during the course of the inspection, the APM identifies visible residual ACM or debris, the Contractor shall re-clean the work area until it is deemed acceptable by the APM.

3.10 WASTE DISPOSAL

A. All waste material shall be promptly wetted and placed in 6-mil polyethylene bags or wrapped in two layers of 6-mil polyethylene plastic sheeting as it is generated. A sufficient number of waste bags and/or plastic sheeting shall be located in the immediate work area (unused bags in the equipment room of the decontamination facility must be disposed of as contaminated waste). The Contractor shall count or measure the volume of each filled container leaving the work area, and maintain a written record of such.

B. Warning labels, having waterproof print and permanent adhesive, shall be affixed to the sides of all waste bags or transfer containers. Warning labels shall be conspicuous and legible, and contain the following words in accordance with OSHA 1926.1101:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

In addition to the above, affix 'waste generator label' to include the generator's name and address on each waste container. Waste transport vehicles will have appropriate U.S. Department of Transportation signage on them for transportation of asbestos waste materials.

C. A fine water spray shall be used to keep the unbagged or unwrapped waste damp at all times.

D. Sealed waste shall be removed from the work area and stored in an on-site, enclosed and lockable dumpster or transported to the landfill. The temporary storage dumpster area shall be prominently identified and be kept locked.

E. Once a truckload of waste containers has accumulated, the Contractor shall arrange for transportation to the landfill. No temporary co-mingling of asbestos waste from this project with that from another site will be allowed.

F. Waste Transportation and Disposal Regulations:

1. It is the responsibility of the Contractor to determine and ensure compliance with the current waste handling regulations applicable to the work site and the current regulations for waste transportation to and disposal at each ultimate landfill. The Contractor shall comply fully with these regulations and with all U.S. Department of Transportation, EPA, and State of Connecticut Department of Environmental Protection (DEP) requirements.

2. If required, the Contractor (or Subcontractor), at no additional cost, shall maintain a valid hazardous waste transporter's permit and identification number, and document and fully comply with any hazardous waste manifesting requirements.

G. Waste Disposal Procedure:

1. The Contractor shall incorporate in his/her proposal the estimated quantity of asbestos waste disposal to be generated during the work; the proposed final waste site; the estimated number of separate waste shipments (loads), and the current estimated transportation and landfill disposal fees (per cubic yard). Non-contaminated waste transport and disposal shall be solely the Contractor's responsibility. The Contractor shall review each of these items and resolve any discrepancies or deficiencies during the pre-construction site meeting.

2. The Contractor shall package, label, and remove all asbestos waste as specified in the specifications. Packaging shall be accomplished in a manner that minimizes waste volume, but so that waste containers will not tear or break.

3. The Contractor shall request, in advance, the APM to review the total volume of waste material to be removed from the site (total count of waste containers and total volume estimate to the nearest 0.5 cubic yard), and insert the quantity on the Waste Shipment Record (Appendix A) and on a hazardous waste manifest if required.

4. The Contractor shall provide legal transportation of this waste to the ultimate disposal landfill; and have the waste hauler and the landfill owner complete all other required manifests, dump slips, or other forms. The completed and fully signed (by all required parties) original of the Waste Shipment Record, and copies of the other forms, shall be returned within thirty (30) calendar days to the Consultant for payment approval. No payments will be approved, or made for incomplete Waste Shipment Records.

5. All disposal of asbestos-containing and/or asbestos-contaminated material must be in compliance with requirements of and authorized by the Solid Waste Management Division, State of Connecticut Department of Environmental Protection (DEP).

H. Waste Disposal Fees:

1. All Contractor contaminated waste handling costs, such as waste packaging, on-site/off-site storing/handling, transport/disposal, permitting, record keeping, and non-contaminated waste handling must be included in the Contractor's proposal as applicable to removal of asbestos materials and/or performance of the related abatement activities.

3.11 PROJECT RESTORATION

A project walk-through may be conducted after the abatement portion of the project to identify areas or equipment damaged during the work. If the Project Engineer or Owner determines that the damage is caused by acts or omissions of the Contractor, a punch list shall be developed. The Contractor shall be responsible for repair or replacement, or at the discretion of the Project Engineer, payment for the work of another Contractor to complete the punch list. A second walk through shall be conducted after completion of punch list items.

END OF SECTION

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT

PROJECT NAME_____DATE_____
PROJECT ADDRESS_____
CONTRACTOR'S NAME_____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.
Your employer's contract with the Project Engineer for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray. By signing this document you are acknowledging only that the Project Engineer has advised you of your obligation to training and protection relative to your employer, the Contractor.

Signature_____

Social Security #_____

Printed Name_____Witness_____

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PCB (<50 ppm) Containing Materials Removal/Disposal Work Plan

Seymour Town Hall
1 First Street
Seymour, CT

Prepared For:

Town of Seymour
One First Street
Seymour, CT 06483

Prepared By:

FSS
Facility Support Services

2685 State Street
Hamden, Connecticut 06517

Michael DiFabio
Field Services Manager

August 29, 2017

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PCB (<50 ppm) Containing Materials
Removal/Disposal Work Plan
Seymour Town Hall
1 First Street
Seymour, CT

The following work plan outlines the removal of Polychlorinated Biphenyl (PCB) – containing vapor barrier fabric located between the brick façade and foundation of the Seymour Town Hall. The vapor barrier fabric has been identified as containing PCBs less than 50 ppm. The exact quantity shall be confirmed at the time of the pre-bid walkthrough. The site is located at 1 First Street in Seymour, Connecticut. The removal shall be conducted by a State of Connecticut licensed asbestos contractor. A State of Connecticut licensed asbestos project monitor shall conduct a visual inspection of the area(s) at the conclusion of the work to verify that the work has been thoroughly and successfully completed. The Town of Seymour has designated Facility Support Services, LLC to conduct project monitoring duties.

The removal of the vapor barrier fabric shall be conducted utilizing a critical barrier enclosure on the interior of the building where the new window installation will occur. The materials should be treated as a regulated asbestos containing material following all applicable State and Federal Regulations for asbestos abatement. All applicable sections of OSHA, EPA, and State of Connecticut Regulations shall be adhered to as part of this project including 29CFR
1926.1101. Prior to the commencement of site work; the Contractor, Town Representative, and any other necessary personnel involved in the project shall attend the pre-removal meeting. The exact date and time of this meeting shall be determined by the Town of Seymour.

PCB REMOVAL PROCEDURE – GENERAL

A. The Contractor shall have a designated "Competent Person" on the job at all times to ensure proper work practices throughout project.

B. All applicable sections of OSHA, EPA, and State of Connecticut Regulations shall be adhered to as part of this project including 29 CFR 1926.

C. Proper PPE shall be worn at all times. This shall include respiratory protection and disposable full body coveralls.

D. Contractor shall provide connections to use the sites water supply and electricity.

E. GFCI devices shall be utilized for all electrical connections made as part of this project.

F. All waste shall be labeled and disposed of in accordance with C.G.S, Sections 22a-463 through 22a-469 that regulate caulking or other building materials containing PCBs <50 ppm but ≥1 ppm. Facility proposed for disposal shall be permitted to accept waste with PCB <50 ppm.

G. Label all PCB waste in accordance with OSHA 29 CFR 1926.1101(k)(8) and EPA 40 CFR part 61.152 as appropriate.

H. All waste must be containerized, labeled and removed from the site by the end of the project. On-site waste storage shall be discussed with the Town of Seymour.

PCB REMOVAL PROCEDURE – ENTRANCE FELT AND COVE BASE MASTIC

A. Install one layer of 6-mil poly sheeting to the ground outside of where removal/cutting is taking place as a drop cloth. Install one layer of 6-mil poly sheeting on the interior area of the building where the proposed cuts will be made.

B. Establish regulated area to restrict access to only those authorized personnel.

E. Workers shall don the proper PPE prior to beginning the removal.

F. Remove the vapor barrier fabric using the following procedure:

1. Utilizing wet methods or HEPA filtration, cut the brick façade where the window units will be installed.

2. Remove brick façade to expose the vapor barrier fabric and place in a PCB waste container.

3. Utilizing hand tools (knife), cut PCB containing vapor barrier fabric and place into a PCB waste container.

4. Continue with HEPA filtration or wet methods to cut foundation where windows are to be installed ensuring no water enters the building.

5. Dispose of foundation material into PCB waste containers.

6. All brick facade, setting compound, mortar, vapor barrier fabric, and foundation materials must be removed and disposed of as PCB waste.

G. Upon completion of all PCB containing material removal work the Contractor shall conduct final cleaning, utilizing wet methods and HEPA vacuuming of the work area.

H. After all removal and cleaning procedures have been completed, the project monitor will visually determine that no dust, debris, or residue is present in the work area(s); following approval by the project monitor, the critical barriers can be removed and the area re-occupied.

Attachments:
Supplemental ACM and PCB Sampling Report (July, 2017)

Supplemental Pre-Renovation Asbestos Inspection Report

For

Seymour Town Hall
1 First Street
Seymour, Connecticut

PREPARED FOR:

Town of Seymour
One First Street
Seymour, CT 06483

PREPARED BY:

FSS
Facility Support Services

2685 State Street
Hamden, CT 06517
Phone (203) 288-1281

July 6, 2017

FSS Project #28217

SIGNATURES OF REPORT AUTHORS

The employees of Facility Support Services, LLC whose names appear below prepared this report. Requests for information on the content of this document should be directed to these individuals.

Michael DiFabio
CT DPH Asbestos Inspector (#000898)

I. PROJECT NARRATIVE

Facility Support Services, LLC (FSS) was contracted to perform a supplemental pre-renovation inspection for hazardous materials at the Seymour Town Hall, located at 1 First Street, Seymour, Connecticut. The purpose of this inspection was to identify the presence of asbestos and PCBs in building materials proposed to be disturbed during site renovations. Specifically, window units are being installed on the ground level of the old (1966) portion of the building.

FSS licensed asbestos inspector Michael DiFabio performed the inspection/sampling. Mr. DiFabio's license is provided in Section V. FSS utilized best industry practices to identify all accessible suspect asbestos and PCB containing materials associated with the renovation.

Any material that has not been identified during this inspection or discovered during renovation activities must be presumed to contain asbestos or PCBs until such time that sampling of the material can be conducted.

This asbestos inspection was performed following the EPA's NESHAP regulations for building renovations and demolition (40 CFR Part 61, Amended 11/20/1990). A total of twelve (12) bulk suspect asbestos samples were collected during this inspection. The materials identified and sampled for asbestos from the building during this inspection included:

- Brick Vapor Barrier Paper
- Foundation Mortar
- Brick Setting Compound
- Brick Mortar
- Black Foundation Coating
- Brown Fiber Layer Behind Bricks

The PCB inspection was performed following industry accepted work methodologies. A total of two (2) bulk suspect PCB samples were collected during this inspection. Due to the age of the subject portion of the site building (1966), and the time period when PCB-containing materials were banned (1979), suspect materials were sampled for PCBs. The materials identified and sampled for PCBs from the building during this inspection included:

- Vapor Barrier Fabric
- Black Foundation Coating

II. SUMMARY OF RESULTS

Samples of building materials collected by FSS for asbestos were analyzed by EMSL Analytical, Inc., for asbestos (EPA method 600/R-93/116). This is currently the approved EPA test method, which uses Polarized Light Microscopy (PLM). EMSL Analytical, Inc. is an accredited asbestos laboratory (NVLAP #200700-0) and is a State of Connecticut approved public health laboratory for asbestos analysis. Samples of building materials collected by FSS for PCBs were analyzed by Complete Environmental Testing (CET) of Stratford, CT. CET is a state-licensed laboratory.

See Section IV for a copy of the laboratory analytical reports for the samples collected.

ASBESTOS

Asbestos Containing Materials Found During the Inspection

There were no findings of asbestos greater than one percent (>1%) in samples collected.

Non-Asbestos Containing Materials Found During the Inspection*
The following materials sampled from the buildings were analyzed and found to contain between zero and one (0 - <1) percent asbestos:

- Brick Vapor Barrier Paper
- Foundation Mortar
- Brick Setting Compound
- Brick Mortar
- Black Foundation Coating
- Brown Fiber Layer Behind Bricks

*As defined by US EPA 40 CFR Section 61 Subpart M

PCBs

PCB Containing Materials Found During the Inspection
The following material sampled was analyzed and found to contain greater than 1 part per million (>1ppm) PCBs:

- Vapor Barrier Fabric: **5.6ppm**

Non-PCB Containing Materials Found During the Inspection*
The following materials sampled was analyzed and found to contain less than 1 part per million (<1ppm) PCBs:

- Black Foundation Coating

III. CONCLUSIONS

When the building is renovated, all removed debris should be sent to an appropriate landfill for final disposal following all appropriate regulations. All workers should be fitted with appropriate personal protective equipment and use tools that will minimize air emissions. Any material discovered during renovation activities which have not been included in this survey must be presumed to contain asbestos and PCBs until such time that the material can be evaluated and sampled.

Asbestos - There were no findings of asbestos greater than one percent (>1%) in samples collected from materials proposed for renovation or demolition.

PCBs - Low level PCB-containing vapor barrier fabric was identified in proposed renovation materials. Laboratory data indicates that the PCB content of this material is 5.6 ppm, above the 1.0 ppm PCB criteria. The vapor barrier fabric should be properly disposed of as CT Regulated Waste containing PCBs between 1 ppm and 10 ppm. Substrate sampling of the surrounding brick should be conducted to determine whether that material has become contaminated and require specific disposal requirements. A PCB work plan should be developed prior to renovations or demolition.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

IV. LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241702311
Customer ID: FSS93
Customer PO:
Project ID:

Attention: Michael DiFabio
Facility Support Services, LLC
2685 State Street
Hamden, CT 06517

Project: 28217/SEYMOUR

Phone: (203) 288-1281
Fax: (203) 248-4409
Received Date: 06/15/2017 3:35 PM
Analysis Date: 06/16/2017 - 06/17/2017
Collected Date: 06/15/2017

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
282170615-01A *241702311-0001*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK VAPOR BARRIER FABRIC	Brown/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
282170615-01B *241702311-0002*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK VAPOR BARRIER FABRIC	Brown Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
282170615-02A *241702311-0003*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - FOUNDATION MORTAR	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
282170615-02B *241702311-0004*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - FOUNDATION MORTAR	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
282170615-03A *241702311-0005*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK SETTING COMPOUND	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
282170615-03B *241702311-0006*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK SETTING COMPOUND	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
282170615-04A *241702311-0007*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK MORTAR	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
282170615-04B *241702311-0008*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BRICK MORTAR	Tan Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
282170615-05A *241702311-0009*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BLACK FOUNDATION COATING	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
282170615-05B *241702311-0010*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BLACK FOUNDATION COATING	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 06/17/2017 17:00:27

EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order:	241702311
Customer ID:	FSS93
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
282170615-06A *241702311-0011*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BROWN FIBER LAYER BEHIND BRICKS	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
282170615-06B *241702311-0012*	SPRINKLER ROOM (EXTERIOR OF 1966 BUILDING) - BROWN FIBER LAYER BEHIND BRICKS	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

Analyst(s)

Lauren Buffone (6)

Quetcy Castro Romero (6)

Lauren Brennan, Asbestos Lab Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0,

Initial report from: 06/17/2017 17:00:27

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Mike DiFabio
Facility Support Services
2685 State Street
Hamden, CT 06517

Analytical Report

CET# 7060461

Report Date:June 23, 2017
Project: 28217, Seymour Town Hall
Project Number: 28217

Connecticut Laboratory Certificate: PH 0116
Massachusetts laboratory Certificate: M-CT903

NELAP ACCREDITED TNI LABORATORY

New York NELAP Accreditation: 11982
Rhode Island Certification: 199

SAMPLE SUMMARY

The sample(s) were received at 3.5°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
PCB-01 Vapor Barrier Fabric	7060461-01	Solid	6/15/2017 13:55	06/16/2017
PCB-02 Black Foundation Coating	7060461-02	Solid	6/15/2017 14:05	06/16/2017

Client Sample ID PCB-01 Vapor Barrier Fabric

Lab ID: 7060461-01

PCBs by Soxhlet **Analyst: JTS**

Method: EPA 8082A **Matrix: Solid**

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1221	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1232	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1242	**5.6**	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1248	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1254	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1260	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1268	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
PCB-1262	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 15:54	
Surrogate: TCMX [1C]	*42.1 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 15:54*	
Surrogate: TCMX [2C]	*34.3 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 15:54*	
Surrogate: DCB [1C]	*30.9 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 15:54*	
Surrogate: DCB [2C]	*28.6 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 15:54*	**L**

CET # : 7060461
Project: 28217, Seymour Town Hall
Project Number: 28217

Client Sample ID PCB-02 Black Foundation Coating

Lab ID: 7060461-02

PCBs by Soxhlet **Analyst: JTS**

Method: EPA 8082A **Matrix: Solid**

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1221	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1232	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1242	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1248	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1254	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1260	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1268	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
PCB-1262	ND	0.40	4	EPA 3540C	B7F2130	06/21/2017	06/22/2017 16:14	
Surrogate: TCMX [1C]	*58.2 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 16:14*	
Surrogate: TCMX [2C]	*46.8 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 16:14*	
Surrogate: DCB [1C]	*48.9 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 16:14*	
Surrogate: DCB [2C]	*46.1 %*	*30 - 150*			B7F2130	06/21/2017	*06/22/2017 16:14*	

QUALITY CONTROL SECTION

Batch B7F2130 - EPA 8082A

Analyte	Result (mg/kg (As Rec))	RL (mg/kg (As Rec))	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B7F2130-BLK1)					Prepared: 6/21/2017 Analyzed: 6/22/2017				
PCB-1016	ND	0.10							
PCB-1221	ND	0.10							
PCB-1232	ND	0.10							
PCB-1242	ND	0.10							
PCB-1248	ND	0.10							
PCB-1254	ND	0.10							
PCB-1260	ND	0.10							
PCB-1268	ND	0.10							
PCB-1262	ND	0.10							
Surrogate: TCMX [1C]					*74.0*	*30 - 150*			
Surrogate: TCMX [2C]					*58.8*	*30 - 150*			
Surrogate: DCB [1C]					*61.9*	*30 - 150*			
Surrogate: DCB [2C]					*88.7*	*30 - 150*			
LCS (B7F2130-BS1)					Prepared: 6/21/2017 Analyzed: 6/22/2017				
PCB-1016	0.695	0.10	1.000		69.5	40 - 140			
PCB-1260	0.742	0.10	1.000		74.2	40 - 140			
Surrogate: TCMX [1C]					*74.7*	*30 - 150*			
Surrogate: TCMX [2C]					*59.2*	*30 - 150*			
Surrogate: DCB [1C]					*59.4*	*30 - 150*			
Surrogate: DCB [2C]					*54.2*	*30 - 150*			
Duplicate (B7F2130-DUP1)		**Source: 7060461-02**			Prepared: 6/21/2017 Analyzed: 6/22/2017				
PCB-1016	ND	0.40		ND				30	
PCB-1221	ND	0.40		ND				30	
PCB-1232	ND	0.40		ND				30	
PCB-1242	ND	0.40		ND				30	
PCB-1248	ND	0.40		ND				30	
PCB-1254	ND	0.40		ND				30	
PCB-1260	ND	0.40		ND				30	
PCB-1268	ND	0.40		ND				30	
PCB-1262	ND	0.40		ND				30	
Surrogate: TCMX [1C]					*37.1*	*30 - 150*			
Surrogate: TCMX [2C]					*30.7*	*30 - 150*			
Surrogate: DCB [1C]					*31.2*	*30 - 150*			
Surrogate: DCB [2C]					*27.8*	*30 - 150*			**L**

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
email: cet1@cetlabs.com

Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-target organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration	An analytical standard analyzed with each set of samples to verify initial calibration of the system.
Batch	Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected at or above the specified reporting limit.
RL	Reporting Limit
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte found in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.

NELAP ACCREDITED TNI LABORATORY

Connecticut Laboratory Certification PH0116
Massachussets Laboratory Certification M-CT903

New York NELAP Accreditation 11982
Rhode Island Certification 199

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

This technical report was reviewed by Timothy Fusco

Project Manager

Report Comments:

Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit
RL is the Reporting Limit
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 8082A in Solid	
PCB-1016	CT,NY
PCB-1221	CT,NY
PCB-1232	CT,NY
PCB-1242	CT,NY
PCB-1248	CT,NY
PCB-1254	CT,NY
PCB-1260	CT,NY
PCB-1268	CT
PCB-1262	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018

7060461

CET

COMPLETE ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY

Page 8 of 8

Volatile Soils Only:
Date and Time in Freezer
Client:
CET:

80 Lupes Drive
Stratford, CT 06615
Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com
Bottle Request e-mail: bottleorders@cetlabs.com

Matrix: A=Air, S=Soil, W=Water, DW=Drinking Water, C=Cassette Solid, Wipe, Other (Specify)

Turnaround Time ** (check one): Same Day *, Next Day *, Two Day *, Three Day *, Std (5-7 Days)

Metals: 8 RCRA, 13 Priority Poll, 15 CT DEP, Total, SPLP, TCLP, Dissolved, Field Filtered, Lab to Filter

Sample ID/Sample Depths (include Units for any sample depths provided)	Collection Date/Time	Matrix	Same Day *	Next Day *	Two Day *	Three Day *	Std (5-7 Days)	8260 CT List	8260 Aromatics	8260 Halogens	CT ETPH	8270 CT List	8270 PNAs	PCBs ☒ SOX ☐ ASE	Pesticides	8 RCRA	13 Priority Poll	15 CT DEP	Total	SPLP	TCLP	Dissolved	Field Filtered	Lab to Filter	Additional Analysis	TOTAL # OF CONT.	NOTE #
PCB-01 Vapor Barrier Fabric	6/15/17 13:55	solid					X							X												1	
PCB-02 Black Foundation Coating	↓ 14:05	↓					X							X												1	

PRESERVATIVE (Cl–HCl, N–HNO_3, S–H_2SO_4, Na–NaOH, C=Cool, O–Other)

CONTAINER TYPE (P–Plastic, G–Glass, V–Vial, O–Other)

Soil VOCs Only (M=MeOH B= Sodium Bisulfate W=Water F= Empty Vial E=Encore)

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
	6/16/17 0925	
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
	6/16/17 1705	
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES:

Client / Reporting Information

Company Name: Facility Support Services, LLC.
Address: 2685 State Street
City: Hamden State: CT Zip: 06517
Report To: Mike DiFabio E-mail: mdifabio@fssteam.com
Phone #: 203-288-1281 Fax #:

Project Information

Project: Seymour Town Hall PO #:
Location: Seymour Project #: 28217
CET Quote # Collector(s): M. DiFabio

QA/QC ☒ Std ☐ Site Specific (MS/MSD) * ☐ RCP Pkg * ☐ DQAW *
Data Report ☒ PDF ☐ EDD - Specify Format Other
RSR Reporting Limits (check one) ☐ GA ☐ GB ☐ SWP ☒ Other 1 ppm
Laboratory Certification Needed (check one) ☒ CT ☐ NY ☐ RI ☐ MA

Temp Upon Receipt 3.5 °C Evidence of Cooling: ☒ Y ☐ N

PAGE ____ OF ____

*** Additional charge may apply. ** TAT begins when the samples are received at the Lab and all issues are resolved. TAT for samples received after 3 p.m. will start on the next business day. All samples picked up by courier service will be considered next business day receipt for TAT purposes.**

REV. 10/16

EMSL Analytical, Inc.
29 North Plains Hwy, Unit 4
Wallingford, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 241702311

Company Name : Facility Support Services, LLC.	**EMSL Customer ID:**
Street: 2685 State Street	**City:** Hamden **State/Province:** CT
Zip/Postal Code: 06517 **Country:** United States	**Telephone #:** 203-288-1281 **Fax #:**
Report To (Name): Michael DiFabio	**Please Provide Results:** ☐ Fax ☑ Email
Email Address: mdifabio@fssteam.com	**Purchase Order:**
Project Name/Number: 28217 / Seymour	**EMSL Project ID** (*Internal Use Only*):
U.S. State Samples Taken: CT	**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt

EMSL-Bill to: ☐ Same ☑ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air ☐ Check if samples are from NY
☐ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☒ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NYS 198.8 SOF-V
☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite*
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ TEM Qual. via Filtration Technique
☐ TEM Qual. via Drop-Mount Technique
*Can not accept New York State Loose Fill Vermiculite Samples

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Filter Pore Size (Air Samples): ☐ 0.8µm ☐ 0.45µm

Samplers Name: Michael DiFabio **Samplers Signature:** [signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached.		

Client Sample # (s): 01 - 06 **Total # of Samples:** 12

Relinquished (Client): [signature] **Date:** 6/15/17 **Time:** 15:35

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:
BillTo: Facility Support Services, LLC., 2685 State Street, Hamden, CT, 06517, United States
Attention: Michele Viarengo Phone: 203-288-1281 Email: mviarengo@fssteam.com Purchase Order:

RECEIVED
JUN 15 2017
By [signature] 15:35 [signature]

Controlled Document – Asbestos COC – R9 – 10/30/2014

OrderID: 241702311

241702311

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Town of Seymour DATE: 6/15/17

LOCATION: Seymour Town Hall SAMPLED BY: M. DiFabio

SAMPLE ID	LOCATION	DESCRIPTION
24170615-01A	Sprinkler Room (Exterior of 1966 Building)	Brick Vapor Barrier Fabric
B	↓	↓
02A		Foundation Mortar
B		↓
03A		Brick Setting Compound
B		↓
04A		Brick Mortar
B		↓
05A		Black Foundation Coating
B		↓
06A		Brown Fiber Layer Behind Bricks
B	↓	↓

RECEIVED
JUN 15 2017
By 15:35

2 of 2

2685 STATE ST.; HAMDEN, CT 06517
PH: 203-288-1281 FAX: 203-248-4409
Website: www.fssteam.com

V. LICENSURE

Dear MICHAEL V DIFABIO,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

RAUL PINO, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSPECTOR

MICHAEL V DIFABIO

CERTIFICATE NO.
000898

CURRENT THROUGH
12/31/17

VALIDATION NO.
03-573709

SIGNATURE

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-573709	000898	12/31/17

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE

COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-573709	000898	12/31/17

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE

COMMISSIONER

ASBESTOS ABATEMENT SPECIFICATIONS

SEYMOUR PUBLIC LIBRARY
46 CHURCH STREET
SEYMOUR, CT 06483

Prepared For:

Town of Seymour
1 First Street
Seymour, CT 06483

Prepared By:

FSS
Facility Support Services

2685 State Street
Hamden, Connecticut 06517

Michael DiFabio
CTDPH Project Designer #000329

May 15, 2017

FSS Project #: 20017

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

TECHNICAL SPECIFICATION

Division I	Section 01010	General Requirements
	Section 01016	Scheduling and Phasing
	Section 01026	Unit Prices
	Section 01700	Contract Closeout
Division II	Section 02080	Asbestos Abatement

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Contractor Qualifications.

B. Contractor Use of Site and Premises.

C. Work Sequence.

D. Owner's Operations.

E. Closeout and Punch List.

F. Cleaning.

G. Emergency Calls

1.2 CONTRACTOR QUALIFICATIONS

A. The Contractor selected must appear on the approved list of Asbestos Abatement Contractors on file at the State of Connecticut Department of Public Health (CTDPH). Only State-certified asbestos abatement supervisors and workers shall perform asbestos abatement work activities.

B. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos regulations pertaining to worker protection, removal, transport, or disposal.

C. The Contractor shall obtain and pay for all required permits, and prepare and file all original and amended local, state, and EPA pre-notification forms immediately following award of the work.

D. The Contractor shall conduct personal exposure air monitoring for airborne fibers as prescribed by OSHA during the project performance.

E. The Project Engineer reserves the right to award this Contract to the Contractor who best meets all contractor qualifications, project requirements and Owner's interests.

1.3 CONTRACTORS USE OF SITE AND PREMISES

A. Limit use of site and premises as follows:
   1. Owner occupancy.
   2. Use of site and premises by Owner.

B. Coordinate use of the premises, including use of parking lots and restroom facilities under direction of the Project Engineer.

C. Coordinate use of scaffolding (if required) to be erected by firms licensed and properly trained to conduct that work. The costs of the scaffolding (if required) shall be included in the Contractors pricing.

D. Assume full responsibility for protection and safekeeping of products under this Contract.

1.4 WORK SEQUENCE

A. Work must be performed to accommodate Owner's and Project Engineer's requirements. Coordinate abatement schedule and operations with the Owner and Project Engineer. Re-occupancy by owner and other trades shall occur following completion of work by the Contractor and successful visual clearance by the Consultant.

B. The Owner may occupy the building for their normal activities during the Work. The Contractor is responsible for creating a plan to accommodate Owner occupancy needs. The work area must be isolated and separated from the occupied portion of the building by an airtight layer of six mil polyethylene sheeting with asbestos warning signs posted on the occupied side.

1.5 OWNER'S OPERATIONS

A. Schedule the Work to accommodate this requirement.

B. Maintain means of egress.

C. Coordinate Work with the Owner and Project Engineer.

D. Maintain the fire alarm/smoke detection systems at all times when the building is occupied during work.

E. Maintain a permanent means of egress during construction. Provide and maintain a temporary means of egress as required by the Fire Marshall.

1.6 INSPECTIONS

A. The Contractor shall carefully check his/her own work and that of any Subcontractor as the work is being performed. Unsatisfactory work shall be corrected immediately.

B. The Consultant shall not be expected to inspect any area more than once. If, during an inspection, the Consultant discovers five (5) or more deficient conditions, then the area shall be declared "Not Ready" for Inspection.

C. All inspections and sampling required for asbestos abatement compliance will be performed by the Consultant.

1.7 CLEANING

A. Throughout the abatement period, the Contractor shall maintain the building and site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such materials from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste as required by the most current federal, state, and local regulations and the requirements of the specifications.

1.8 EMERGENCY CALLS

A. The Contractor shall provide Project Engineer and the Consultant with a telephone number where the Contractor or Contractor's Representative can be reached during non-working hours.

B. At the direction of a duly authorized representative of the Owner, the Contractor may be required to dispatch all necessary personnel and equipment to any point on the work site to clear obstructions or make safe any conditions deemed necessary by Project Engineer or Consultant.

1.9 ADDITIONAL GENERAL REQUIREMENTS

B. The Abatement Contractor shall employ an English-speaking competent Asbestos Abatement Supervisor with at least three (3) years experience on projects of similar scope and magnitude who shall be responsible for all work involving asbestos abatement as described in the Specifications and defined in the applicable regulations, and have full-time daily supervision of the same. The Supervisor shall be the "Competent Person" as defined by OSHA regulations. The Contractor shall provide, on-site, at least one English-speaking foreman at all times when work is in progress. The supervisor and foreman must be thoroughly experienced in asbestos-containing materials removal work, knowledgeable of all applicable federal, state, and local regulations and capable of skillfully executing all work promptly, efficiently and in compliance with all requirements of these specifications. Project

Engineer reserves the right to have any supervisory or foreman personnel removed from the project if they do not demonstrate the requisite qualifications.

C. The Contractor shall allow work performed under this contract to be inspected, if required, by local, state, federal, and any other authorities having jurisdiction over such work. The Contractor shall immediately notify Project Engineer and shall maintain written evidence of such inspection for review by Project Engineer and Consultant.

D. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.

E. The Contractor shall immediately notify Project Engineer of the delivery of all permits, licenses, certificates of inspection, approval or occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of to who issued, and shall cause them to be displayed to Project Engineer for verification and recording.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. A Pre-Abatement Meeting shall be scheduled by Project Engineer and must be attended by the Contractor and any Sub-Contractors.

B. The Contractor shall present a working schedule at the Pre-Abatement Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and Project Engineer will inform the Contractor of additions or changes in the scheduling requirements for the project.

C. As a result of the Pre-Abatement Meeting, the Contractor shall submit a revised schedule no later than three days following the Pre-Construction Meeting. Upon approval from Project Engineer, the Contractor will receive a "Notice to Proceed" with the work of the Contract.

D. Refer to all other applicable sections of the specification for coordination with other trades. The Contractor shall coordinate work with all other activities at this occupied site.

1.2 TIME FOR COMPLETION AND WORKING HOURS

A. Upon award of contract from Project Engineer, the Contractor shall immediately order materials, supplies, and components for the work of this project.

B. The Contractor shall begin the work immediately upon receipt of the written "Notice to Proceed" from Project Engineer. The date of the commencement of the work is termed the "Abatement Start Date." The Contractor will be required to complete all work of this Contract within the time period stipulated in the finalized schedule. The last day in the schedule is termed as "Contract Completion Date".

C. If conditions arise that are beyond the control of the Contractor and force delays in the performance of the Work, Project Engineer shall immediately be notified. The Contractor shall state the reason for the delay and shall estimate the expected duration of the delay. Any application for an extension of the Contract completion date shall be made under proper change order procedures. The acceptance of the cause for delay and change order is subject to Project Engineer's review and approval.

D. Work hours will be established in coordination with Project Engineer and Owner.

E. Any extra hours or days per week worked by the Contractor or Sub-Contractors shall be at no extra cost to the Owner. Denial of extra hours or days per week by Owner shall not be grounds for extra time allotted to the overall Contract time.

F. At the Pre-Abatement Meeting, Project Engineer, the Contractor, and the Consultant will meet and define a project work schedule to which the Contractor will be bound. Any change in the work schedule subsequent to the pre-abatement meeting must be approved by Project Engineer.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

A. A unit price is an amount proposed by the Contractor and stated on the proposal as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the project Scope of Work is altered.

B. Unit prices include material, any direct or indirect expenses of the Contractor or Sub-Contractor, profit, insurance, bonding, and any applicable taxes. The same unit price shall apply whether the work is added or deducted.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 FINAL CLEANING

A. Unless otherwise specified under Sections of this Specification, the Contractor shall perform final cleaning operations specified prior to final inspection.

B. Maintain the project site free from accumulations of waste, debris and rubbish caused by operations. At the completion of the work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave the project clean and ready for work of others under separate contract.

C. Cleaning shall include all surfaces, interior and exterior, in which the Contractor has had access.

D. Use only those materials that will not create hazards to health or property.

1.3 ABATEMENT CLOSEOUT DOCUMENTS

A. Submit to Project Engineer, final completed copies of the Waste Shipment Records, signed by all transporters and the designated disposal site owner/operator.

B. Submit to Project Engineer and the Consultant, copies of all notifications & permits, and all worker certifications (certificates, training, medical, and fit-test).

C. If requested, submit to the Consultant copies of all personal air monitoring results.

D. The Contractor must be able to provide Certified Payroll documentation to the governing party upon formal request.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

DIVISION II

SPECIAL CONDITIONS

FOREWORD

Supplementing Division I of the Specifications for the work to be performed under this Contract, DIVISION II, SPECIAL CONDITIONS, shall apply particularly to this Contract.

The enforcement of the requirements of any of the Special Conditions shall not be construed as waiving any of the rights of the Owner and/or Project Engineer, contained in any of the other provisions of the Contract.

The Contract documents, including without limitation, these Special Conditions, shall be interpreted and construed as far as is reasonably possible to be in addition to, supplementary to and consistent with each other.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. General Provisions of Contract, including Supplementary Conditions and other Division 1 Sections, apply to this Section.

B. Refer to other Sections of these Specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.

1.2 SCOPE OF WORK

A. Work outlined in this section includes all that is necessary for the complete removal and disposal of asbestos-containing and asbestos-contaminated materials (ACM) identified in the areas as detailed below for the Seymour Public Library located at 46 Church Street, Seymour, CT. The quantities given below are provided to establish the order of magnitude of the abatement project. Actual quantities may vary. The Contractor is responsible for verification of all quantities of ACM scheduled for removal. This verification shall include an on-site walk-through inspection of the work area.

B. Coordinate this section with other Sections of these Specifications for actual quantities of work required. Location, estimated quantities, and abatement phasing plan of specific items noted in paragraph A above include:

TABLE 1: LIST OF ACMs
Seymour Public Library
46 Church Street, Seymour, CT

MATERIAL	LOCATION	ESTIMATED QUANTITY
Exterior Window Caulking (Old Tan)	Perimeter of window casings: All basement level windows associated with various other caulkings (1956 Building Portion)	2 @ 2'x2' (16 LF) 10 @ 3.75'x2' (115 LF) 2 @ 3.75'x9' (53 LF) 1 @ 3.75'x6' (19.5 LF) 3 @ 3.75'x3' (40.5 LF) Note: the exact amount of window caulking to abate will be determined during the pre-bid walkthrough.
Exterior Glass Block Caulking	Perimeter of Glass Block insets (1956 Building Portion)	2 @ 4'x1.5' (22 LF) 1@ 1.5'x2' (7 LF) Note: the exact amount of caulking to abate will be determined during the pre-bid walkthrough.
Various (9"x9" and Strip) Resilient Floor Tiles and Associated Mastic	Original Entrance: Entrance landing, Stairs, Upper level landing (1956 Building Portion)	Floor Tile ~ 141 SF Mastic ~ 141 SF Note: the exact amount of Floor tile and mastic to abate will be determined during the pre-bid walkthrough.

Note: LF = Linear Feet, SF = Square Feet

1.3 DEFINITIONS

The following definitions relative to asbestos abatement apply:

1. ABATEMENT - Procedures to control fiber releases from asbestos containing materials; includes removal, encapsulation, and enclosure.

2. AIR MONITORING - The process of measuring the airborne fiber concentration within an area or within a person's breathing zone.

3. AMENDED WATER - Water to which a surfactant has been added.

4. ASBESTOS - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically altered.

5. ASBESTOS PROJECT MONITOR (APM) - A professional capable of conducting air monitoring and analysis of samples for airborne fiber concentrations. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.

6. ASBESTOS WORK AREA - A regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos abatement operations are performed which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

7. ASBESTOS FELT - A product made by saturating felted asbestos with asphalt or other suitable binder, such as a synthetic elastomer.

8. ASBESTOS FIBERS - Those asbestos particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.

9. ASPHALT SHINGLES, COMPOSITION SHINGLES OR STRIP SLATES - (Pitched Roof Shingle): a roofing material manufactured by saturating a dry felt with asphalt then coating the saturated felt with a harder asphalt mixed with a fine mineral, glass fiber, asbestos or organic stabilizer. All or part of the weather side may be covered with mineral granules, or with powdered talc or mica.

10. BASE FLASHING (ROOF) - The flashing provided by upturned edges of a watertight membrane on a roof. May contain metal and associated waterproofing material or combination of roofing felts and waterproofing at the joint between a roofing surface and a vertical surface such as a wall or parapet. Also base flashing may be present at perimeter of completely flat roofing.

11. BUILT-UP ROOFING - Composition Roofing, Felt and Gravel Roofing, Gravel Roofing) - a continuous roof covering made up of laminations or plies of saturated or coated roofing felts, alternated with layers of asphalt or coal-tar pitch and surfaced with gravel, paint or finish coat.

12. CAULKING - Resilient mastic compound often having a silicone bituminous or rubber base. Used to seal cracks, fill joints and prevent leakage. Typical applications: around windows and doors, at joints between two dissimilar materials. (i.e. masonry to wood, masonry to steel etc.).

13. CLEAN ROOM - An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

14. CLEARANCE SAMPLING - Final air sampling performed aggressively after the completion of the abatement project in a regulated area. Clearance sampling can be conducted by either of the following two methods:

    (A) Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM).

    (B) Five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).

15. COMPETENT PERSON - As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. In addition has authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with Environmental Protection Agency's (EPA) Model Accreditation Plan.

16. CURTAINED DOORWAY - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.

17. DAMP PROOFING - Application of a water impervious material to surface such as wall to prevent penetration of moisture, typically at foundation or below grade surface.

18. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

19. ENCAPSULANT - A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

20. EQUIPMENT ROOM - Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

21. FIXED OBJECT - Unit of equipment or furniture in the work areas that cannot be removed from the work area.

22. FRIABLE ASBESTOS MATERIALS - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.

23. GLAZING COMPOUND - any compound used to hold window glass in place, also referred to as putty, or glaziers' putty. Is not field-applied, usually installed during manufacture of windows.

24. GLOVE BAG - A manufactured polyethylene bag type of enclosure with built-in gloves such as is placed with an airtight seal around asbestos-containing material and which permits the asbestos-containing materials contained by the bag to be removed without releasing asbestos fibers to the atmosphere. The use of glove bag is permitted for removal and repair of small amount (less than 3 linear feet/3 square feet) of ACM.

25. HEPA FILTER - High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2-1979.

26. HEPA VACUUM EQUIPMENT - Vacuum equipment equipped with a HEPA filter system for filtering the effluent air from the unit.

27. MOVABLE OBJECT - Unit of equipment or furniture in the work area that can be removed from the work area.

28. NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust ventilation system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

29. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.

30. PERMISSIBLE EXPOSURE LEVEL (PEL) - The average airborne concentration of asbestos fibers to which an employee is allowed to be exposed over an eight-hour period. The PEL established by OSHA 29 CFR 1926.1101 is 0.1 fibers per cubic centimeter of air averaged over an eight-hour time period. An airborne fiber concentration of 1.0 fibers /cc averaged over a sampling period of 30 minutes is the Excursion Limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.

31. REGULATED AREA - An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos fibers may exceed the PEL.

32. SHOWER ROOM - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

1.4 SUBMITTALS

A. The Contractor shall submit the following to Project Engineer/Consultant prior to the pre-abatement meeting:

1. Evidence that the Contractor is certified to perform asbestos abatement work in the State of Connecticut.
2. Schedule to Project Engineer and the Consultant, which defines a timetable for executing and completing the project, including set-up, removal, cleanup, decontamination, and air clearance monitoring.
4. Connecticut certificate of training (both initial and current refresher), current respirator fit test records, and current medical records for each employee who may be on the project site. Effective June 4, 2000, no individual shall provide services as an asbestos abatement site supervisor or as an asbestos abatement worker without a certificate to do so issued by the CTDPH.

B. The following shall be submitted to Project Engineer at the completion of work:

1. Signed copy of the Certificate of Workers Acknowledgment found at the end of this section for each worker who is to be at job site.
2. Regulated area access logs.
3. Completed copies of Waste Shipment Records (WSR).

1.5 REGULATIONS AND STANDARDS

A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos abatement. Specifically, the Contractor shall comply with the requirements of the following:

1. U.S. Environmental Protection Agency (USEPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) Regulations (40 CFR 61, Subpart M)
2. USEPA Asbestos-Containing Materials in Schools Regulations (40 CFR Part 763, Final Rule and Notices)
3. Occupational Safety and Health Administration (OSHA) Asbestos Regulations (29 CFR 1910.1001 and 1926.1101)
4. State of Connecticut Department of Public Health (CTDPH) Standards for Asbestos Abatement Sections 19a-332a-1 through 19a-332a-16 inclusive and Sections 20-440-1 through 20-440-9 inclusive
5. State of Connecticut Department of Environmental Protection (CTDEP) Regulations, Section 22a-209-8(i) and Section 22a-220 of the Connecticut General Statute.
6. Connecticut Basic Building Code (BOCA)
7. National Fire Protection Association (NFPA) Life Safety Code
8. Local health and safety codes, ordinances or regulations pertaining to asbestos abatement and all national codes and standards including Association for Standards of Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL).
9. Occupational Safety and Health Administration (OSHA) (29 CFR 1910 Subpart D) and (29 CFR 1926 Subpart M) Fall Protection.

1.6 EXEMPTIONS

A. Any deviations from these Specifications require the written approval and authorization from Project Engineer and the Consultant.

B. Any deviation in the applicable work practices identified in CTDPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-23, Sections 20-440-1 to 20-440-9, Section 20-441, and Section 19a-332e-1 to 19a-332e-2, must be requested in writing and approved in writing by the CTDPH.

1.7 FINAL VISUAL INSPECTION

A. Following the completion of the final cleaning phase of the work in a contained work area, the Consultant shall conduct a final visual inspection of the area. The Contractor shall be responsible for meeting final visual criteria, which is the absence of visible debris, as specified in CTDPH regulation 19a-332a-12(b).

B. Following the completion of the final visual inspection, and upon which time the Consultant agrees that the Contractor has met the final visual criteria, the Consultant will collect final clearance air samples in work area(s) (where applicable) as required if the area is to be reoccupied for any reason. The Owner shall be responsible for payment of the sampling and analysis of the first round of final air clearance samples only for a particular work area.

1.8 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

A. The Contractor shall make the following notifications and provide submittals to the following agencies prior to the commencement of removal work. <u>This notification is required ten (10) calendar days prior to the start of the abatement project</u>:

1. State of Connecticut
   Department of Public Health
   Indoor Air Program
   410 Capitol Avenue
   P.O. Box 340308
   Hartford, CT 06134-0308

   <u>Note:</u> Satisfies the requirement to notify the EPA (except when the amount of ACM to be abated is less than 10 linear/25 square feet or when the work involves demolition with zero asbestos. EPA needs to be notified directly in those situations)

2. State of Connecticut
   Department of Environmental Protection
   Health Services and Solid Waste Management Unit
   165 Capital Avenue
   Hartford, CT 06106
   (Only if asbestos waste is disposed of in Connecticut)

B. The minimum information included in the notification to these agencies includes:

1. Name and address of site owner/operator.
2. Site location.
3. Amount of friable and non-friable asbestos-containing materials to be removed.
4. Work schedule, including proposed start and completion dates.
5. Asbestos removal procedures to be used.
6. Name and location of disposal site for generated asbestos waste, residue, and debris.

1.9 WORK SITE SAFETY PLAN

A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:

1. Evacuation of injured workers.
2. Emergency and fire exit routes from all work areas.
3. Emergency first aid treatment.
4. Local telephone numbers for emergency services including ambulance, fire, and police.
5. Methods to notify appropriate personnel in the event of a fire or other emergency requiring evacuation of the site or area.
6. Site safety plan for fall protection.

B. The Contractor is responsible for training all workers in these procedures.

1.10 CONTROL OVER REMOVAL WORK

A. At the discretion of the Project Engineer, all work procedures shall be continuously monitored by the Consultant’s Asbestos Project Monitor (APM) to determine that areas outside the designated work area(s) have not been contaminated.

B. Prior to work on any given day, the Contractor's designated "Competent Person" shall discuss the day's work schedule with the APM to evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination outside the work area. This includes a visual survey of the work area(s) and the decontamination enclosure systems.

C. The Contractor shall maintain control of and be responsible for access to all work areas to ensure the following requirements:

1. Non-essential personnel are prohibited from entering the area.

2. All authorized personnel entering the work area shall read the "Worker Protection Procedures" which are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing.
3. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated.
4. Asbestos waste that is taken out of the work area must be properly bagged and labeled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos waste leaving the enclosure system must be immediately transported off site or immediately placed in locked, posted temporary storage on site, and removed within 24 hours of the project conclusion. The Contractor will seek permission of the Owner to place a temporary dumpster at a suitable location on-site.
5. Any material, equipment, or supplies that are brought out of the decontamination enclosure system shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

1.11 PROPER WORKER PROTECTION

A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

B. All workers are to be accredited and certified as Asbestos Abatement Workers as required by the CTDPH.

C. The Contractor is required to be certified, accredited, and licensed as required by the CTDPH.

D. In accordance with 29 CFR 1926.1101, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include but is not limited to the following:

1. Methods of recognizing asbestos.
2. Health effects associated with asbestos.
3. Relationship between smoking and asbestos in producing lung cancer.
4. Nature of operations that could result in exposure to asbestos.
5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
    a. Engineering controls
    b. Work practices
    c. Respirators
    d. Housekeeping procedures
    e. Hygiene facilities

f. Protective clothing
g. Decontamination procedures
h. Emergency procedures
i. Waste disposal procedures

6. Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134.
7. Appropriate work practices for the work.
8. Requirements of medical surveillance program.
9. Review of 29 CFR 1926.
10. Pressure differential systems.
11. Work practices including hands on or on-job training.
12. Personal Decontamination procedures.
13. Air monitoring, personal and area.

E. The Contractor shall provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an eight-hour Time Weighted Average (TWA). In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area for any reason. Examination shall at a minimum meet OSHA requirements as set forth in 29 CFR 1926.1101. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

F. Submit the following to the Consultant for review. The Contractor shall not start work until the Consultant reviews the submittals and indicates that they are acceptable.

1. Certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each Asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.
2. Evidence that the Contractor is certified to perform asbestos abatement work by the State of Connecticut Department of Public Health.
3. An original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.
4. Documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
   a. Name and Social Security Number.
   b. Physicians Written Opinion from examining physician including at a minimum the following:
      1) Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.

2) Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

3) Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

5. A statement that the worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat/cold stress in the worker.

1.12 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

A. The Contractor shall be responsible for monitoring airborne asbestos fiber concentrations in the workers' breathing zones and to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001, and 1926.1101.

B. The Contractor's air sampling procedures shall ensure proper documentation of all personal air-sampling results. Documentation for personal sampling must be available at the job site for review by federal and/or state regulatory agencies.

C. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101. The flow rate for air samples will not be less than 0.5 liters/minute and must not exceed 2.5 liters/minute.

1.13 RESTRICTIONS ON CONTRACTOR'S USE OF GROUNDS

A. The Contractor shall confine his/her operations to the actual work site, access routes and storage areas designated by the Owner. The Contractor may place a dumpster at a location designated by the Owner.

B. The Contractor shall have sole responsibility for providing all materials, equipment, or tools and any storage required shall be at the Contractor's own risk. The Owner will not assume responsibility for any loss of materials, equipment, or tools stored on its property.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.

B. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.

C. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to the job site with factory label indicating 4 or 6 mil thickness or greater.

D. Polyethylene disposable bags shall be six (6) mil thick with pre-printed labels.

E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

F. Surfactant (wetting agent), shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one (1) ounce surfactant to five (5) gallons of water or as directed by manufacturer.

G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant found acceptable to Consultant. Usage shall be in accordance with manufacturer's printed technical data.

H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas where asbestos is present.

I. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with OSHA Standard 29 CFR 1926.1101) Containers must be both air and watertight.

J. Labels and signs, as required by OSHA Standard 29 CFR 1926.1101 will be used.

K. Encapsulant shall be bridging or penetrating type which has been found acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

2.2 TOOLS AND EQUIPMENT

A. The Contractor shall provide all tools and equipment necessary for asbestos removal.

B. The Contractor's air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personal exposure monitoring per OSHA requirements.

C. The Contractor shall have available sufficient inventory of dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape and air filters.

D. The Contractor shall have available power cables or power sources such as generators (where required).

E. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of at least 0.02 inches of water column within each enclosure with respect to outside areas. Equipment shall be checked for proper operation by smoke tubes or differential pressure gauge before the start of each shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside, nor shall filtered air units be exhausted indoors from the work area.

F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at lead 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

G. The Contractor will have reserve units so that the exhaust air filtration system will operate continuously, where applicable.

2.3 ELECTRICAL

A. All electrical installations shall be accomplished under the direction of a Licensed Electrician.

B. The Contractor shall furnish and install a portable ground fault circuit interrupter (GFCI) Power Supply Board and receptacles including the following:

1. All circuits individually GFCI-protected.

2. Weatherproof enclosure NEMA 3 (rain-tight) with receptacle covers.

3. Construction durable, 16-gauge steel construction.

4. At least two 20-amp circuits (for APM).

5. Main circuit breaker.

6. Components UL listed.

C. The Decontamination Facility shall be furnished with a power supply board with one 20-amp circuit for the APM.

D. The Contractor shall furnish and install wiring as follows:

1. Each 20-amp circuit provided for the APM shall have one run of 20-amp duplex outlets (watertight) each on 100 feet of No. 12 SO cord.

2. Size the wire to limit voltage drop to a maximum of 3% with length of run.

E. The Contractor will supply temporary lighting for all abatement work areas, if needed.

F. The Contractor will de-energize, lockout, and tag existing electrical components within the work area at their closest main source, if applicable.

G. Electrical power may be supplied by the Owner at the Owners' discretion.

PART 3 - EXECUTION

3.1 PRE-ABATEMENT MEETING

A. Prior to the start of work, a Pre-Abatement Meeting will be scheduled and must be attended by the Contractor and any Sub-Contractors. The assigned Contractor/Sub-Contractor's Site Supervisor is also required to attend this meeting.

B. A detailed project schedule and all required project submittals shall be presented by the Contractor at the Pre-Abatement Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the Contractor of any scheduling adjustments for this project.

C. Following the Pre-Abatement Meeting, the Contractor shall submit a revised schedule (if needed) no later than three days following the meeting. Upon approval by the Project Engineer, the Contractor will receive a "Notice to Proceed" with the work of the Contract.

3.2 WORKER PROTECTION

A. General:

1. All asbestos abatement work shall be performed in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101 and State of Connecticut regulations as specified herein. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, drinking, chewing gum, or applying cosmetics shall not be permitted in the asbestos regulated area. Personnel of other trades not engaged in the abatement of asbestos shall not be allowed in the regulated area unless all the personnel protection provisions of this Specification are complied with by the trade personnel.

2. Engineering controls shall be used to minimize airborne fiber concentrations within the work area. A combination of personal protective equipment and work practices shall also be used to further reduce employee exposure to asbestos fibers.

3. The Contractor shall provide all authorized visitors with protective clothing, headgear, and eye protection as in the procedures described herein and afford them the use of all facilities to keep them free of contamination from asbestos fibers.

4. The Contractor shall provide the decontamination facility for worker and equipment decontamination as well as the results of the personal air monitoring.

B. Respiratory Protection:

1. The Contractor shall select and provide at no cost to his/her employees respirators, which shall provide adequate protection to the employee as specified by Section 1910.1001(g) Table D-1 and Section 1926.1101(h) Table D-4.

2. Respiratory protection shall be worn by all persons potentially exposed to elevated airborne concentrations of asbestos fibers from the initiation of the asbestos abatement project until all areas have been given clearance. Clearance shall be obtained by visual observation conducted by the APM.

3. At a minimum, the Contractor shall provide half-face air-purifying respirators to all workers at the job site. If it is established, through collection and analysis of personal air samples in accordance with the OSHA Reference Method (ORM) (See U.S. Department of Labor; Occupational Safety and Health Administration; Occupational Exposure to Asbestos; Title 29 CFR 1910.1001, "General Industry Standard." Title 29 CFR 1926.1101, "Construction Standard") that this respiratory protection is inadequate, the Contractor will provide Powered Air Purifying Respirators or Type C (continuous flow or pressure demand) supplied air respirators.

a. Once the exposure limits have been established, the respirators presented in 29 CFR 1910.1001 that afford adequate protection at such upper concentrations of airborne asbestos fibers shall be used.

b. The minimum personal sampling period shall be seven hours at a flow rate of 0.5 to 2.5 liters per minute. The samples shall be collected within the workers' breathing zone. Personal sampling shall be the responsibility of the Contractor. Personal sampling results shall be available on site no later than 24 hours after sampling.

c. The filters provided for both the cartridge respirators and the PAPR's shall be National Institute for Occupational Safety and Health (NIOSH) approved for asbestos fibers.

C. Protective Clothing:

1. The Contractor shall provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls, head covers, and 18-inch high boot type covers or reusable footwear.

2. The Contractor shall provide eye protection and hard hats, as required, by job conditions and safety regulations.

3. Reusable footwear, hard hats and eye protection devices shall be cleaned at the end of each work day.

4. Upon completion of asbestos abatement work, the footwear shall be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from work area or from equipment and access area.

5. All disposable protective clothing shall be discarded and disposed of as asbestos waste when the wearer exits from the regulated area.

D. Decontamination Procedures:

1. Each worker and authorized visitor without exception shall, upon entering the job site: put on an appropriate respirator with new filters, and 2 layers of clean disposable protective clothing before entering the regulated area.

2. Each time he/she leaves the work area, each worker and authorized visitor shall:

a. Vacuum gross contamination from clothing before leaving the work area.

b. Proceed to the perimeter of the regulated area.

c. Still wearing the respirator, remove outer disposable coveralls.

d. Exit regulated area and remove remaining disposable coveralls.

e. Remove respirator filters, wet them, and dispose of filters in the container provided for that purpose.

f. Wash and rinse the inside of the respirator.

3. Contaminated protective clothing shall be placed in receptacles for disposal with other asbestos-contaminated materials.

3.3 WORK AREA PREPARATION

A. Where necessary, within regulated areas, shut down electrical power, including receptacles and light fixtures. Under no circumstances during the abatement process will existing lighting fixtures inside the regulated area be permitted to be operating. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes and by a licensed electrician.

B. During the work, vents within the regulated area shall be sealed with duct tape and 6 mil polyethylene sheeting.

C. Seal off all openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, A/C units, and any other penetration of the work areas, with polyethylene sheeting a minimum of 6 mil thick, sealed with duct tape.

D. The Owner may occupy portions of the building for their normal activities during the Work. The Contractor is responsible for creating a plan to accommodate Owner occupancy needs and remaining construction/renovation work. The work area must be isolated and separated from the occupied portion of the building by an airtight layer of six mil polyethylene sheeting with asbestos warning signs posted on the occupied side.

E. The Contractor shall remove moveable objects within the proposed work area to the extent possible before the work starts.

F. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.

G. Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.

H. Prior to construction of an interior containment, for the purpose of floor tile removal, the Consultant must submit an Alternate Work Practice (AWP) to the Connecticut Department of Public Health (CTDPH). This document must be approved by the CTDPH prior to the commencement of interior floor tile abatement activities.

3.4 MAINTENANCE OF THE WORK AREA

A. Acceptance of Asbestos Control Area: The Contractor shall not begin removal until authorized by the APM. The control area must be constructed, barriers properly constructed, openings sealed, and other preparations made to allow the removal operation to proceed. If conditions are not acceptable, the Contractor shall correct deficiencies to comply with the specifications.

3.5 ASBESTOS REMOVAL PROCEDURE - GENERAL

A. The Contractor shall have a designated "Competent Person" on the job at all times to ensure establishment of a proper enclosure system and proper work practices throughout project.

B. Abatement work will not commence until authorized by on-site APM.

C. Spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operation. The Consultant shall pre-approve the use of amended water as the wetting agent.

D. In order to maintain indoor airborne asbestos fiber concentrations to the minimum, the wet asbestos must be removed in manageable sections.

E. Fill disposal containers as removal proceeds, seal filled containers and clean containers before removal to equipment decontamination system. Wet clean each container thoroughly, double bag and apply caution label. Ensure that workers do not exit the work area thorough the equipment decontamination enclosure.

F. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped, and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.

G. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. During cleanup, utilize brooms, rubber dustpan, and rubber squeegees.

H. Sealed disposal containers, and all equipment used in the work area, shall be included in the cleanup and shall be removed from work areas via the equipment decontamination enclosure at an appropriate time in the cleaning sequence. All asbestos waste shall be placed in 6-mil polyethylene disposal bags and shall be double bagged in the equipment decontamination enclosure before removal from the site.

I. At any time during asbestos removal, should the APM suspect contamination of areas outside the work area(s), he/she shall cause all abatement work to stop until the Contractor takes steps to decontaminate these areas and eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections certify decontamination.

J. After completion of the initial final cleaning procedure, which includes removal of the inner layer of six (6) mil polyethylene sheeting, but prior to encapsulation, a pre-sealant inspection shall be conducted by the Consultant. The pre-sealant inspection shall verify that ACM and residual dust has been removed from the work area.

3.6 ASBESTOS REMOVAL PROCEDURE – EXTERIOR CAULKINGS

A. The Contractor shall establish a regulated area around the perimeter of the work area. Only properly trained and licensed persons shall be permitted to enter this area.

B. Prior to beginning the removal of any ACMs, remove all movable objects from the work area.

C. One layer of 6-mil polyethylene sheeting shall be installed below the area where removal is taking place to act as a drop cloth.

D. Remove exterior caulking materials using the following procedure:

1. Wet the caulking with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for amended water, removal encapsulant, or detergent solution to absorb prior to removal.
2. Keep caulking materials continuously wet throughout removal operation.
3. Remove caulking materials using a manual spade or stripping device. Continuously area with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet.

E. Debris and Waste

1. Pick waste debris created immediately.
2. Place debris into labeled disposal bags.
3. Place bagged waste in a second labeled disposal bag and dispose of as asbestos waste.

F. Exterior caulking materials must be removed intact and placed into a labeled container for disposal. Do not allow caulking that is removed from elevated locations to fall to the ground. If debris cannot be prevented from falling to ground, an enclosure must be utilized that will ensure no visible emissions are generated.

G. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

I. After completion of all removal work the Contractor shall conduct final cleaning.

3.7 ASBESTOS REMOVAL PROCEDURE - FLOOR TILE & MASTIC

A. Prior to beginning the removal of any resilient floor covering, remove all movable objects from the work area. If applicable, remove the bookcases, counters, and radiators to access the floor tile and mastic that go underneath those items.

B. Remove resilient tile floor covering using the following procedure:

1. Remove binding strips, all vinyl cove base, or other restrictive molding from doorways, walls, etc. clean and dispose of as demolition waste unless contaminated with ACMs. Dispose of any materials that have floor mastic on them as asbestos-containing waste. The contractor may have to perform selective destructive demolition, such as removing partition walls, to access the tile.
2. Wet the floor with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. If necessary, cover with sheet polyethylene to allow humidity to release tiles from floor. Allow time for humidity and water or removal encapsulant to loosen tiles prior to removal.
3. Keep floor continuously wet throughout removal operation.
4. Remove tiles using a manual or powered spade, or stripping machine. Continuously mist floor in area where machine is working with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet. Keep floor where tile has been removed continuously wet until after completion of heavy adhesive residue removal.
5. Floor mastics may be removed using low odor chemical strippers in accordance with manufacturer’s instructions.
6. In areas where mastic has been applied to a wood or similar porous sub-flooring, such material shall be removed and disposed of as asbestos containing waste.

C. Debris and Waste

1. Pick up whole tiles, stack, place in lined boxes or place in labeled disposal bags. At the Contractor's option tiles may be placed directly into durable leak-tight containers.
2. Shovel broken tiles and debris into nylon reinforced grain bags that are placed in a disposal bag, or place directly in steel leak-tight drums.
3. Place bagged waste in a second disposal bag during decontamination and dispose of as asbestos waste.

D. After completion of floor tile removal, the Contractor may remove mastic adhesive. If the thickness of the mastic residue is too thick to permit effective use of a shot/bead blast machine, utilize hand-scraping wet methods to remove gross adhesive and then use the shot/bead blast or equivalent machine to complete the removal of these materials.

E. After completion of all ACM removal work, the Contractor shall conduct final cleaning.

3.8 CONSULTANT AND SUSPENSION OF WORK

A. The Consultant will also act as the APM for the project.

B. The removal work shall be reviewed by the Consultant. The Contractor will request an inspection at least 24hrs in advance of requiring the inspection.

C. During the progress of the work, the Consultant, following approval by the Project Engineer, shall have the right to make any changes, alterations, additions or omissions in the work or Specifications in accordance with the General Conditions.

D. The Consultant will recommend that the Project Engineer order a suspension of work based on a determination of risk of adverse health and safety impacts on the environment, workers, or the general public, or failure to comply with the Specifications/regulations. The Contractor and the Project Engineer will be notified in writing of the reason and of the recommended resolution.

E. The Consultant will provide oversight and visual inspection services throughout the Contract's duration. It shall be the Contractor's responsibility to comply with pertinent work standards and regulations.

F. The Consultant will conduct visual observations and perform inspections in work areas for evaluating that the work areas remain properly secured and isolated and specified work items are properly completed. Upon completion of work in a defined work area, the Consultant will conduct a final visual inspection for the purpose of evaluating work completion. Unsatisfactory conditions shall be immediately corrected in a manner specified by the Consultant and the contract documents. Final payments shall be approved only after the Consultant receives all properly completed Waste Shipment Record Forms and other required documentation and records.

3.9 CONSULTANTS' AIR SAMPLING RESPONSIBILITIES

A. Air sampling shall be conducted by the Consultant to ascertain the integrity of controls that protect the building from asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

B. Consultant's APM shall collect and analyze air samples during the following time periods:

1. Pre-Abatement Period: The APM may collect samples prior to abatement work to establish baseline readings. These samples will be collected in and around the proposed work area.
2. Abatement Period: The APM may collect samples on a daily basis during the work period. A sufficient number of area samples shall be taken outside of the work area and outside of the building to judge the degree of cleanliness or contamination of the building during removal. Additional samples may be collected at the discretion of the APM.
3. Post-Abatement Period: As required by the regulation to facilitate reoccupancy of an area, the APM shall conduct air sampling following the final cleanup phase of the project, once the "no visible residue" criterion, as established by the project monitor, has been met. Five (5) samples shall be collected inside the work area utilizing aggressive methods to comply with the State of Connecticut Department of Public Health Standards for Asbestos Abatement, sections 19a-332a-12, and United States Environmental Protection Agency (USEPA) Asbestos-Containing Materials in Schools regulation 40 CFR Part 763.
   Analysis of the samples to determine airborne concentrations of asbestos shall be conducted in accordance with the above regulations.

C. The APM shall provide ongoing evaluation of the air quality within the building during removal, using his/her best professional judgments with respect to the State of Connecticut Department of Public Health guideline of 0.010 fibers/cc and the background air quality established during the pre-abatement period.

D. If the APM determines that the building air quality has become contaminated from the project, he/she shall immediately inform the Contractor to cease all removal operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of the areas of the building designated by the Consultant. No further removal work can take place until the APM has assessed that the building air has been decontaminated.

E. Pre-abatement and during abatement air samples shall be collected as required to obtain a volume of 1,200 liters (if feasible). Samples shall be analyzed by PCM methodology using the NIOSH 7400 protocol.

3.10 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. Inspections shall be conducted by the APM throughout the progress of the abatement project. Inspections shall be conducted in order to document the progress of the abatement work as well as the procedures and practices employed by the Contractor.

B. The APM shall perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the Contractor. The APM shall be informed sufficiently in advance of the time the inspection is needed. During the course of the pre-commencement inspection, the APM shall inspect the containment and surrounding work areas. This shall include, but not be limited to, inspection of barrier integrity, utilization of power sources, and location and capacity of negative air filtration devices. If, during the course of the pre-commencement inspection, deficiencies are found, the Contractor shall perform the necessary adjustments in order to obtain compliance.

2. Work Area Inspections. Work area inspections may be conducted on a daily basis at the discretion of the Project Engineer/Consultant. During the course of the work inspections, the APM shall observe the Contractor's removal procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

3. Final Visual Inspection. An inspection for each work area shall be conducted by the APM upon the request of the Contractor. The inspection shall be conducted after completion of the final cleaning procedures. The inspection shall verify that no visible ACM or residual debris remain in the work area. If, during the course of the inspection, the APM identifies visible residual ACM or debris, the Contractor shall re-clean the work area until it is deemed acceptable by the APM.

3.11 WASTE DISPOSAL

A. All waste material shall be promptly wetted and placed in 6-mil polyethylene bags or wrapped in two layers of 6-mil polyethylene plastic sheeting as it is generated. A sufficient number of waste bags and/or plastic sheeting shall be located in the immediate work area (unused bags in the equipment room of the decontamination facility must be disposed of as contaminated waste). The Contractor shall count or measure the volume of each filled container leaving the work area, and maintain a written record of such.

B. Warning labels, having waterproof print and permanent adhesive, shall be affixed to the sides of all waste bags or transfer containers. Warning labels shall be conspicuous and legible, and contain the following words in accordance with OSHA 1926.1101:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

In addition to the above, affix 'waste generator label' to include the generator's name and address on each waste container. Waste transport vehicles will have appropriate U.S. Department of Transportation signage on them for transportation of asbestos waste materials.

C. A fine water spray shall be used to keep the unbagged or unwrapped waste damp at all times.

D. Sealed waste shall be removed from the work area and stored in an on-site, enclosed and lockable dumpster or transported to the landfill. The temporary storage dumpster area shall be prominently identified and be kept locked.

E. Once a truckload of waste containers has accumulated, the Contractor shall arrange for transportation to the landfill. No temporary co-mingling of asbestos waste from this project with that from another site will be allowed.

F. Waste Transportation and Disposal Regulations:

1. It is the responsibility of the Contractor to determine and ensure compliance with the current waste handling regulations applicable to the work site and the current regulations for waste transportation to and disposal at each ultimate landfill. The Contractor shall comply fully with these regulations and with all U.S. Department of Transportation, EPA, and State of Connecticut Department of Environmental Protection (DEP) requirements.

2. If required, the Contractor (or Subcontractor), at no additional cost, shall maintain a valid hazardous waste transporter's permit and identification number, and document and fully comply with any hazardous waste manifesting requirements.

G. Waste Disposal Procedure:

1. The Contractor shall incorporate in his/her proposal the estimated quantity of asbestos waste disposal to be generated during the work; the proposed final waste site; the estimated number of separate waste shipments (loads), and the current estimated transportation and landfill disposal fees (per cubic yard). Non-contaminated waste transport and disposal shall be solely the Contractor's responsibility. The Contractor shall review each of these items and resolve any discrepancies or deficiencies during the pre-construction site meeting.

2. The Contractor shall package, label, and remove all asbestos waste as specified in the specifications. Packaging shall be accomplished in a manner that minimizes waste volume, but so that waste containers will not tear or break.

3. The Contractor shall request, in advance, the APM to review the total volume of waste material to be removed from the site (total count of waste containers and total volume estimate to the nearest 0.5 cubic yard), and insert the quantity on the Waste Shipment Record (Appendix A) and on a hazardous waste manifest if required.

4. The Contractor shall provide legal transportation of this waste to the ultimate disposal landfill; and have the waste hauler and the landfill owner complete all other required manifests, dump slips, or other forms. The completed and fully signed (by all required parties) original of the Waste Shipment Record, and copies of the other forms, shall be returned within thirty (30) calendar days to the Consultant for payment approval. No payments will be approved, or made for incomplete Waste Shipment Records.

5. All disposal of asbestos-containing and/or asbestos-contaminated material must be in compliance with requirements of and authorized by the Solid Waste Management Division, State of Connecticut Department of Environmental Protection (DEP).

H. Waste Disposal Fees:

1. All Contractor contaminated waste handling costs, such as waste packaging, on-site/off-site storing/handling, transport/disposal, permitting, record keeping, and non-contaminated waste handling must be included in the

Contractor's proposal as applicable to removal of asbestos materials and/or performance of the related abatement activities.

3.12 PROJECT RESTORATION

A project walk-through may be conducted after the abatement portion of the project to identify areas or equipment damaged during the work. If the Project Engineer or Owner determines that the damage is caused by acts or omissions of the Contractor, a punch list shall be developed. The Contractor shall be responsible for repair or replacement, or at the discretion of the Project Engineer, payment for the work of another Contractor to complete the punch list. A second walk through shall be conducted after completion of punch list items.

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT

PROJECT NAME_____DATE_____
PROJECT ADDRESS_____
CONTRACTOR'S NAME_____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.
Your employer's contract with the Project Engineer for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray. By signing this document you are acknowledging only that the Project Engineer has advised you of your obligation to training and protection relative to your employer, the Contractor.

Signature_____

Social Security #_____

Printed Name_____Witness_____

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PCB (<50 ppm) Containing Materials Removal/Disposal Work Plan

Seymour Public Library
46 Church Street
Seymour, CT

Prepared For:

Town of Seymour
One First Street
Seymour, CT 06483

Prepared By:

FSS
Facility Support Services

2685 State Street
Hamden, Connecticut 06517

Kevin Bogue, CIH, CHMM
Senior Project Manager

May 15, 2017

FSS Project #20017

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

PCB (<50 ppm) Containing Materials
Removal/Disposal Work Plan
Seymour Town Library
46 Church Street
Seymour, CT

The following work plan outlines the removal of Polychlorinated Biphenyl (PCB) - containing floor mat, associated felt underlayment, and cove base mastic from the southern entrance foyer located along Church Street at the Seymour Town Library. The floor mat and felt have been identified as containing PCBs less than 50 ppm. The exact quantity shall be confirmed at the time of the pre-bid walkthrough. The site is located at 46 Church Street in Seymour, Connecticut. The removal shall be conducted by a State of Connecticut licensed asbestos contractor. A State of Connecticut licensed asbestos project monitor shall conduct a visual inspection of the area at the conclusion of the work to verify that the work has been thoroughly and successfully completed. The Town of Seymour has designated Facility Support Services, LLC to conduct project monitoring duties.

The removal of the friable felt material shall be conducted under containment with the use of a negative pressure enclosure. The materials should be treated as a regulated asbestos containing material following all applicable State and Federal Regulations for asbestos abatement. All applicable sections of OSHA, EPA, and State of Connecticut Regulations shall be adhered to as part of this project including 29CFR 1926.1101. Prior to the commencement of site work; the Contractor, Town Representative, and any other necessary personnel involved in the project shall attend the pre-removal meeting. The exact date and time of this meeting shall be determined by the Town of Seymour.

PCB REMOVAL PROCEDURE – GENERAL

A. The Contractor shall have a designated "Competent Person" on the job at all times to ensure proper work practices throughout project.

B. All applicable sections of OSHA, EPA, and State of Connecticut Regulations shall be adhered to as part of this project including 29 CFR 1926.

C. Proper PPE shall be worn at all times. This shall include respiratory protection and disposable full body coveralls.

D. Contractor shall provide connections to use the sites water supply and electricity.

E. GFCI devices shall be utilized for all electrical connections made as part of this project.

F. All waste shall be labeled and disposed of in accordance with C.G.S, Sections 22a-463 through 22a-469 that regulate caulking or other building materials containing PCBs <50 ppm but ≥1 ppm. Facility proposed for disposal shall be permitted to accept waste with PCB <50 ppm.

G. Label all PCB waste in accordance with OSHA 29 CFR 1926.1101(k)(8) and EPA 40 CFR part 61.152 as appropriate.

H. All waste must be containerized, labeled and removed from the site by the end of each work day.

PCB REMOVAL PROCEDURE – ENTRANCE MAT

A. The floor mat itself shall be carefully removed and placed into a container for subsequent disposal.

PCB REMOVAL PROCEDURE – ENTRANCE FELT AND COVE BASE MASTIC

A. Install one layer of 6-mil poly sheeting to the ground on each side of the floor mat and cove base where removal is taking place as a drop cloth. Drop cloth shall encompass the entire entrance landing.

B. Work shall be conducted under full negative air enclosure prior to removal of ACM.

C. Establish regulated area to restrict access to only those authorized personnel.

D. A remote personal decontamination facility shall be erected onsite and as near as possible to the regulated area, and shall consist of 3 stages and constructed according to 1926.1101(j)(1)(i).

E. Workers shall don the proper PPE prior to beginning the removal. PPE should address the asbestos and PCB containing materials.

F. Remove the felt underlayment and cove base mastic using the following procedure:

1. Remove the cove base and place into PCB container.

2. Wet the materials to be removed (cove base mastic and felt underlayment) with amended water or detergent solution, so that entire surface is adequately wet. Do not allow puddle or run-off to other areas.

3. Continuously mist material being removed with amended water.

4. Separate felt materials and cove base mastic from substrate concrete/brick.

5. Ensure that waste is adequately wet.

6. All felt materials, cove base and cove base mastic must be removed and disposed of as asbestos waste.

7. A HEPA-filtered vacuum cleaner or wet cleaning technique shall be used to clean up the work area following abatement until there is no visible residue.

G. After completion of all PCB containing material removal work the Contractor shall conduct final cleaning, utilizing wet methods and HEPA vacuuming of the work area.

H. After all removal and cleaning procedures have been completed, the project monitor will visually determine that no dust, debris, or residue is present in the work area; following approval by the project monitor, the containment can be removed and the area re-occupied.

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Demolition and removal of selected site elements.
   2. Salvage of existing items to be reused.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.

B. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.

C. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

   1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Storage or sale of removed items or materials on-site is not permitted.

C. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1.6 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Survey of Existing Conditions: Record existing conditions.
   1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
   2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

3.3 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

   1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Maintain adequate ventilation when using cutting torches.
5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Protect items from damage during transport and storage.
3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.

B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.

C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

B. Burning: Do not burn demolished materials.

3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.8 SELECTIVE DEMOLITION SCHEDULE

A. Remove: Where indicated on the drawings; remove existing asphalt pavement, concrete curbs, sidewalks, ramps, entry slab on grade, shrubs and plantings.

B. Remove and Reinstall: circular pipe railing along edge of ramp and handicap access panel with associated electrical connections in building.

C. Existing to Remain: All existing pavement, sidewalk and curbs, site drainage out or adjacent to proposed work shall remain.

END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.

B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mixing water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.

D. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.

1. Location of construction joints is subject to approval of the Engineer.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and manufacturer.

B. Welding certificates.

C. Material Certificates: For each of the following, signed by manufacturers:

1. Cementitious materials.
2. Admixtures.
3. Steel reinforcement and accessories.
4. Fiber reinforcement.
5. Curing compounds.
6. Floor and slab treatments.
7. Bonding agents.
8. Adhesives.
9. Vapor retarders.
10. Semirigid joint filler.
11. Joint-filler strips.
12. Repair materials.

D. Material Test Reports: For the following, from a qualified testing agency:

1. Aggregates**:** Include service record data indicating absence of deleterious expansion of concrete due to alkali aggregate reactivity.

E. Floor surface flatness and levelness measurements indicating compliance with specified tolerances.

F. Field quality-control reports.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.

B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

1.7 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

1.8 FIELD CONDITIONS

A. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

B. Hot-Weather Placement: Comply with ACI 301 and as follows:

1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:

1. ACI 301.

2.2 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.

B. Plain-Steel Wire: ASTM A 1064/A 1064M.

C. Deformed-Steel Wire: ASTM A 1064/A 1064M.

D. Plain-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, plain, fabricated from as-drawn steel wire into flat sheets.

E. Deformed-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, flat sheet.

2.3 REINFORCEMENT ACCESSORIES

A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60, plain-steel bars, cut true to length with ends square and free of burrs.

B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:

2.4 CONCRETE MATERIALS

A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.

B. Cementitious Materials:

1. Portland Cement: ASTM C 150/C 150M, Type I, Type II , gray.
2. Fly Ash: ASTM C 618, Class F or C.
3. Slag Cement: ASTM C 989/C 989M, Grade 100 or 120.
4. Silica Fume: ASTM C 1240, amorphous silica.

C. Normal-Weight Aggregates: ASTM C 33/C 33M, coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.

1. Maximum Coarse-Aggregate Size: 3/4 inch (19 mm) nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

D. Air-Entraining Admixture: ASTM C 260/C 260M.

E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

F. Water: ASTM C 94/C 94M and potable.

2.5 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.

C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

2.6 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

B. Bonding Agent: ASTM C 1059/C 1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.

C. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:

2.7 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash: 25 percent.
2. Combined Fly Ash and Pozzolan: 25 percent.
3. Slag Cement: 50 percent.
4. Combined Fly Ash or Pozzolan and Slag Cement: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
5. Silica Fume: 10 percent.
6. Combined Fly Ash, Pozzolans, and Silica Fume: 35 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
7. Combined Fly Ash or Pozzolans, Slag Cement, and Silica Fume: 50 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.

C. Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing, high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a w/c ratio below 0.50.

2.8 CONCRETE MIXTURES FOR BUILDING ELEMENTS

A. Sidewalks and curbs: Normal-weight concrete.

1. Minimum Compressive Strength: 4000 psi at 28 days.
2. Maximum W/C Ratio: 0.45.
3. Slump Limit: 4 inches for concrete with verified slump of 2 to 4 inches before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch.
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 3/4-inch nominal maximum aggregate size.

2.9 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.10 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK INSTALLATION

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:

1. Class A, 1/8 inch for smooth-formed finished surfaces.

D. Construct forms tight enough to prevent loss of concrete mortar.

E. Construct forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.

1. Install keyways, reglets, recesses, and the like, for easy removal.
2. Do not use rust-stained steel form-facing material.

F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.

G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

H. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

I. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

J. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

K. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEM INSTALLATION

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
3. Install dovetail anchor slots in concrete structures as indicated.

3.3 VAPOR-RETARDER INSTALLATION

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.

1. Lap joints 6 inches and seal with manufacturer's recommended tape.

B. Bituminous Vapor Retarders: Place, protect, and repair bituminous vapor retarder according to manufacturer's written instructions.

3.4 STEEL REINFORCEMENT INSTALLATION

A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

1. Weld reinforcing bars according to AWS D1.4/D 1.4M, where indicated.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

E. Install welded-wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

F. Epoxy-Coated Reinforcement: Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963/D 3963M. Use epoxy-coated steel wire ties to fasten epoxy-coated steel reinforcement.

G. Zinc-Coated Reinforcement: Repair cut and damaged zinc coatings with zinc repair material according to ASTM A 780/A 780M. Use galvanized-steel wire ties to fasten zinc-coated steel reinforcement.

3.5 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

C. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated.
2. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

3.6 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections are completed.

B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect.

C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.

1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Deposit and consolidate concrete for slabs and sidewalks in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

1. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
2. Maintain reinforcement in position on chairs during concrete placement.
3. Screed slab surfaces with a straightedge and strike off to correct elevations.
4. Slope surfaces uniformly to drains where required.
5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

3.7 FINISHING SLABS AND SIDEWALKS

A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.8 MISCELLANEOUS CONCRETE ITEM INSTALLATION

A. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

3.9 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

a. Water.
b. Continuous water-fog spray.
c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

3.10 JOINT FILLING

A. Prepare, clean, and install joint filler according to manufacturer's written instructions.

1. Defer joint filling until concrete has aged at least one month. Do not fill joints until construction traffic has permanently ceased.

B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.

3.11 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Engineer. Remove and replace concrete that cannot be repaired and patched to Engineer's approval.

B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

C. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.

1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
2. After concrete has cured at least 14 days, correct high areas by grinding.
3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
4. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.

D. Repair materials and installation not specified above may be used, subject to Engineer's approval.

END OF SECTION 033000

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 040120.63 - BRICK MASONRY REPAIR

PART 1 - SUMMARY

A. Section includes

1. Repairing brick masonry, including replacing and reusing existing units at the Library and Police Station.
2. Lintel replacement at the Police Station.
3. Caulking parapets at the Police Station.

B. Related Work
1. Lintels are specified in Section 055000 Metal Fabrications.

1.2 DEFINITIONS

A. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

1. Include plans, elevations, sections, and locations of replacement masonry units on the structure.
2. Show provisions for expansion joints or other sealant joints.

C. Samples: For each exposed product and for each color and texture specified.

1.5 QUALITY ASSURANCE

A. Brick Masonry Repair Specialist Qualifications: Engage an experienced brick masonry repair firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience in only installing masonry is insufficient experience for masonry repair work.

B. Quality-Control Program: Prepare a written quality-control program for this Project to systematically demonstrate the ability of personnel to properly follow methods and use

materials and tools without damaging masonry. Include provisions for supervising performance and preventing damage.

PART 2 - PRODUCTS

2.1 MASONRY MATERIALS

A. Face Brick: As required to complete brick masonry repair work.

1. Brick Matching Existing: Units with colors, color variation within units, surface texture, size, and shape that match existing brickwork.

a. For existing brickwork that exhibits a range of colors or color variation within units, provide brick that proportionally matches that range and variation rather than brick that matches an individual color within that range.

2. Special Shapes:

a. Provide molded, 100 percent solid shapes for applications where core holes or "frogs" could be exposed to view or weather when in final position and where shapes produced by sawing would result in sawed surfaces being exposed to view.
b. Provide specially ground units, shaped to match patterns, for arches and where indicated.
c. Mechanical chopping or breaking brick, or bonding pieces of brick together by adhesive, are unacceptable procedures for fabricating special shapes.

B. Grade: ASTM C 62, Grade SW.

C. MORTAR MATERIALS

D. Portland Cement: ASTM C 150/C 150M, Type I or Type II, except Type III may be used for cold-weather construction; white or gray, or both where required for color matching of mortar.

1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.

E. Hydrated Lime: ASTM C 207, Type S.

F. Mortar Sand: ASTM C 144.

1. Exposed Mortar: Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
2. Colored Mortar: Natural sand or ground marble, granite, or other sound stone of color necessary to produce required mortar color.

G. Mortar Pigments: ASTM C 979/C 979M, compounded for use in mortar mixes, and having a record of satisfactory performance in masonry mortars.

H. Water: Potable.

2.2 ACCESSORY MATERIALS

A. Setting Buttons and Shims: Resilient plastic, nonstaining to masonry, sized to suit joint thicknesses and bed depths of masonry units, less the required depth of pointing materials unless removed before pointing.

B. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:

1. Previous effectiveness in performing the work involved.
2. Minimal possibility of damaging exposed surfaces.
3. Consistency of each application.
4. Uniformity of the resulting overall appearance.
5. Do not use products or tools that could leave residue on surfaces.

2.3 MORTAR MIXES

A. Mortar Testing and Matching: Take test specimens of existing mortar from a sound intact representative portion of the structure. Subject mortar sample to examination and testing to determine binder components. Separate and examine aggregate content and range of colors. Perform sand analysis using a sieve analysis of the aggregate. Match the replacement mortar to the original existing material in color, texture and tooling.

B. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.

C. Colored Mortar: Produce mortar of color required by using specified ingredients. Do not alter specified proportions without Architect's approval.

1. Mortar Pigments: Where mortar pigments are indicated, do not add pigment exceeding 10 percent by weight of the cementitious or binder materials, except for carbon black which is limited to 2 percent.

D. Do not use admixtures in mortar unless otherwise indicated.

E. Mixes: Mix mortar materials in the following proportions:
1. Rebuilding (Setting) Mortar by Type: ASTM C 270, Proportion Specification, Type N unless otherwise indicated; with cementitious material limited to portland cement and lime.
2. Pigmented, Colored Mortar: Add mortar pigments to produce exposed, setting (rebuilding) mortar of colors required.

PART 3 - EXECUTION

3.1 PROTECTION

A. Remove downspouts adjacent to masonry and store during masonry repair. Reinstall when repairs are complete.

1. Provide temporary rain drainage during work to direct water away from building.

3.2 BRICK REMOVAL AND REPLACEMENT

A. At locations indicated, remove bricks that are damaged, spalled, or deteriorated or are to be reused. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.

B. Support and protect remaining masonry that surrounds removal area.

C. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.

D. Notify Architect of unforeseen detrimental conditions including voids, cracks, bulges, and loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.

E. Remove in an undamaged condition as many whole bricks as possible.

1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.

F. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement.

G. Replace removed damaged brick with other removed brick in good condition, where possible, matching existing brick. Do not use broken units unless they can be cut to usable size.

H. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.

1. Maintain joint width for replacement units to match existing joints.
2. Use setting buttons or shims to set units accurately spaced with uniform joints.

I. Lay replacement brick with rebuilding (setting) mortar and with completely filled bed, head, and collar joints. Butter ends with enough mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per minUse wetting methods that ensure that units are nearly saturated but surface is dry when laid.

1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
2. Rake out mortar used for laying brick before mortar sets . Point at same time as repointing of surrounding area.
3. When mortar is hard enough to support units, remove shims and other devices interfering with pointing of joints.

J. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.

1. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

3.3 FINAL CLEANING

A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, applied by low pressure spray.

1. Do not use metal scrapers or brushes.
2. Do not use acidic or alkaline cleaners.

END OF SECTION 040120.63

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 042210- MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Clay face brick.
2. Clay tiles
3. Concrete masonry units
4. Steel reinforcing bars.
5. Precast concrete window sills

B. Products Installed but Not Furnished under This Section:

1. Steel lintels.

1.2 DEFINITIONS

A. CMU(s): Concrete masonry unit(s).

B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples for Verification: For each type and color of brick and colored mortar.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of product. For masonry units, include data on material properties.

B. Mix Designs: For each type of mortar. Include description of type and proportions of ingredients.

C. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91/C 91M for air content.

D. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.

1.5 QUALITY ASSURANCE

A. Samples may be included in the final construction.

1.6 FIELD CONDITIONS

A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.

B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

PART 2 - PRODUCTS

2.1 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6, except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects will be exposed in the completed Work.

2.2 BRICK

A. Reuse existing brick wherever possible.

B. New brick shall match existing brick.

C. Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.

D. Clay Face Brick: Facing brick complying with ASTM C 216.
1. Grade SW.
2. Type FBS.
3. Initial Rate of Absorption: Less than 30 g/30 sq. in. per minute when tested according to ASTM C 67.

4. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
5. Surface Coating: Brick with colors or textures produced by application of coatings shall withstand 50 cycles of freezing and thawing according to ASTM C 67 with no observable difference in the applied finish when viewed from 10 feet or shall have a history of successful use in Project's area.
6. Size (Actual Dimensions): 3-1/2 inches or 3-5/8 inches wide by 2-1/4 inches high by 8 inches long.
7. Color and Texture: As selected by Architect.

2.3 STRUCTURAL CLAY FACING TILE (Town Clerk's Vault)

A. General:

Provide special shapes where required for corners, jambs, coved bases, sills, and other special conditions indicated, including applications that cannot be produced by sawing standard units.

B. Glazed Structural Clay Facing Tile: ASTM C 126, Grade S (Select).
1. Sizes: Match existing

a. Provide Type I (single-faced units) where only one finished face is exposed when units are installed, and Type II (double-faced units) where two opposite finished faces are exposed when units are installed

2.4 CONCRETE BRICK: ASTM C 1634.Retain one of three options in "Density Classification" Subparagraph below, or delete subparagraph for Contractor's option.

A. Density Classification: Medium weight.

B. Size (Actual Dimensions): 3-5/8 inches wide by 2-1/4 inches high by 7-5/8 inches long.

2.5 CONCRETE MASONRY UNITS

A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.

B. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.

C. CMUs: ASTM C 90.

D. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi.

E. Density Classification: Medium weight unless otherwise indicated.

2.6 MORTAR MATERIALS

A. Exposed mortar for brick shall be a high lime mortar. Portland Cement: ASTM C 150/C 150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color matching existing mortar for exposed brick.

B. Hydrated Lime: ASTM C 207, Type S.

C Portland Cement-Lime Mix: Custom blend of Portland cement and hydrated lime containing no other ingredients.

D. Masonry Cement: ASTM C 91/C 91M.

E. Mortar Pigments: Compounded for use in mortar mixes and complying with ASTM C 979/C 979M. Use only pigments with a record of satisfactory performance in masonry mortar.

F. Aggregate for Mortar: ASTM C 144.

G. Exposed Mortar: Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.

H. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

I. Water: Potable.

2.7 TIES AND ANCHORS

A. General: Ties and anchors shall extend at least 1-1/2 inches into veneer but with at least a 5/8-inch cover on outside face.

B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:

1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M, with ASTM A 153/A 153M, Class B-2 coating.
2. Steel Sheet, Galvanized after Fabrication: ASTM A 1008/A 1008M, Commercial Steel, with ASTM A 153/A 153M, Class B coating.

C. Adjustable Masonry-Veneer Anchors:

1. General: Provide anchors that allow vertical adjustment but resist a 100-lbf load in both tension and compression perpendicular to plane of wall without deforming or developing play in excess of 1/16 inch.
2. Fabricate wire ties from 0.187-inch- diameter, hot-dip galvanized-steel wire unless otherwise indicated.

3. Fabricate wire connector sections from 0.187-inch- diameter, hot-dip galvanized, carbon-steel wire.

2.8 EMBEDDED FLASHING MATERIALS

A. Flexible Flashing: Use one of the following unless otherwise indicated:

1. Copper-Laminated Flashing: [**5-oz./sq. ft.**] [**7-oz./sq. ft.**] copper sheet bonded between two layers of glass-fiber cloth. Use only where flashing is fully concealed in masonry.

2. Rubberized-Asphalt Flashing: Composite flashing product consisting of a pliable, adhesive rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 0.040 inch.

3. Butyl Rubber Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.040 inch.

4. Elastomeric Thermoplastic Flashing: Composite flashing product consisting of a polyester-reinforced ethylene interpolymer alloy.

5. Flashing: Sheet flashing product made from ethylene-propylene-diene terpolymer, complying with ASTM D 4637/D 4637M, 0.040 inch thick.

2.9 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded filler strips complying with ASTMD 1056,Grade 2A1;compressible up to 35 percent; of width and thickness indicated; formulated from neoprene urethane or PVC.

B. Weep/Vent Products: Use one of the following unless otherwise indicated:

1. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch less than depth of outer wythe, in color selected from manufacturer's standard.

2. Aluminum Weep Hole/Vent: Units made from sheet aluminum, designed to fit into a head joint and consisting of a vertical channel, with louvers stamped in web and with a top flap to keep mortar out of the head joint; factory primed and painted before installation to comply with Section 099113 "Exterior Painting" in color selected by Architect.

. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

2.10 MORTAR MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Use portland cement-lime for exposed brick or masonry cement mortar elsewhere unless otherwise indicated.
3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Use Type N unless another type is indicated.

D. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.

1. Mix to match existing mortar.
2. Application: Use colored aggregate mortar for exposed mortar joints.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.

C. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested according to ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

3.2 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.

2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 feet, or 1/2 inch maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch maximum.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch. Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch.

3.3 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Lay exposed masonry to match existing adjacent bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

C. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

3.4 MORTAR BEDDING AND JOINTING

A. Lay masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

C. Lay hollow CMUs as follows:

1. Bed face shells in mortar and make head joints of depth equal to bed joints.
2. Bed webs in mortar in all courses of piers, columns, and pilasters.
3. Bed webs in mortar in grouted masonry, including starting course on footings.
4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.

D. Lay solid CMUs with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

E. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

3.5 FLASHING, WEEP HOLES, AND VENTS

A. General: Install embedded flashing and weep holes in masonry at lintels.

B. Install flashing as follows unless otherwise indicated:

1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
2. At lintels extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.
3. Stop flexible flashing 1/2 inch back from outside face of wall, and adhere flexible flashing to top of metal drip edge.

C. Install weep holes in veneers in head joints of first course of masonry immediately above embedded flashing.

1. Use specified weep/vent products to form weep holes.
2. Space weep holes 24 inches o.c. unless otherwise indicated.

3.6 FIELD QUALITY CONTROL

A. Testing Prior to Construction: One set of tests.

B. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.

3.7 REPAIRING, POINTING, AND CLEANING

A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes.
2. Protect adjacent stone and nonmasonry surfaces from contact with cleaner.
3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
4. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

3.8 MASONRY WASTE DISPOSAL

A. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.

1. Do not dispose of masonry waste as fill within 18 inches of finished grade.

B. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042210

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 055000 - METAL FABRICATIONS

1.1 SUMMARY

A. Section Includes:

1. Loose steel lintels
2. Aluminum downspouts (roof leaders) at Library
3. Steel downspouts (roof leaders) at Police Station

PART 2 - PRODUCTS

2.1 LOOSE STEEL LINTELS

A. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls and partitions at locations indicated.

B. Galvanize loose steel lintels located in exterior walls.

2.2 FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.

B. Zinc-Coated Steel Finish: Two-coat fluoropolymer.

1. Color: Match existing roofing and trim.

C. Aluminum Finish: Two-coat fluoropolymer

1. Color: White

2.3 DOWNSPOUTS (ROOF LEADERS)

A. Custom-fabricated to match existing, steel or aluminum as indicated.

1. Zinc-Coated Steel: Nominal 0.028 inch thickness.
2. Formed Aluminum: 0.032 inch thickness

PART 3 - EXECUTION

3.1 INSTALLATION

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other of with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

C. Downspouts: Join sections securely and permanently. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate fasteners at top and bottom and at approximately 60 inches centers. Hanger faster finishes shall match downspouts.
   1. Connect downspouts to underground drainage system indicated.
   2. Connect downspouts to gutters with separate outlet tube sealed to gutter and extending a minimum of 4 inches from flange edge to bottom edge inside downspout.

END OF SECTION 055000

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Miscellaneous nonstructural wood framing.
   2. Wood blocking, cants, and nailers.
   3. Plywood backing panels.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.

B. Evaluation Reports: For the following, from ICC-ES:

   1. Wood-preservative-treated wood.

1.4 QUALITY ASSURANCE

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

   1. Factory mark each piece of lumber with grade stamp of grading agency.
   2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
   3. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 19 percent.

C. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

1. Allowable design stresses, as published by manufacturer, shall meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC3b for exterior construction not in contact with ground, See the Evaluations for information about treatment chemicals.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Nailers, curbs, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
4. Wood framing members that are less than 18 inches above the ground in crawlspaces or unexcavated areas.
5. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

B. Dimension Lumber Items: Construction or No. 2 grade lumber of any species.

C. Concealed Boards: 19 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine or southern pine; No. 2 grade; SPIB.

2. Eastern softwoods; No. 2 Common grade; NeLMA.
3. Northern species; No. 2 Common grade; NLGA.
4. Western woods; Construction or No. 2 Common grade; WCLIB or WWPA.

2.4 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: Plywood, DOC PS 1, Exposure 1, C-D Plugged, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness.

2.5 FASTENERS

A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M or of Type 304 stainless steel.

B. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

C. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 or ICC-ES AC308 as appropriate for the substrate.

1. Use for wood-preservative-treated lumber and where indicated.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).

END OF SECTION 061000

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 062013 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Exterior cellular PVC trim
2. PVC ceilings panels
3. Miscellaneous framing

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

B. Samples: For each type of product involving selection of colors, profiles, or textures.

1.3 INFORMATIONAL SUBMITTALS

A. Compliance Certificates:

1. For lumber that is not marked with grade stamp.
2. For preservative-treated wood that is not marked with treatment-quality mark.

B. Evaluation Reports: For the following, from ICC-ES:
1. Cellular PVC trim.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated.

B. Factory mark each piece of lumber with grade stamp of inspection agency, indicating grade, species, moisture content at time of surfacing, and mill.

1. For exposed lumber, mark grade stamp on end or back of each piece.

C. Softwood Plywood: DOC PS 1.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category [**UC3a**] [**UC3b**].

1. Kiln dry lumber and plywood after treatment to a maximum moisture content of 19 and 18 percent, respectively.
2. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
3. Application: Where indicated.

2.3 EXTERIOR TRIM AND PANELS

A. Cellular PVC : Extruded, expanded PVC with a small-cell microstructure, recommended by manufacturer for exterior use, made from UV- and heat-stabilized rigid material.
   1. Density: Not less than 31 lb/cu. ft..
   2. Heat Deflection Temperature: Not less than 130 deg F, according to ASTM D 648.
   3. Water Absorption: Not more than 1 percent, according to ASTM D 570.
   4. Flame-Spread Index: 75 or less, according to ASTM E 84.

2.4 MISCELLANEOUS MATERIALS

A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches into wood substrate.

   1. For face-fastening siding, provide ringed-shank siding nails.
   2. For prefinished items, provide matching prefinished aluminum or stainless steel fasteners where face fastening is required.
   3. For applications not otherwise indicated, provide stainless-steel hot-dip galvanized-steel or aluminum fasteners.

B. Flashing: Comply with requirements in Section 076200 "Sheet Metal Flashing and Trim" for flashing materials installed in exterior finish carpentry.

   1. Horizontal Joint Flashing for Panel Siding: Preformed, prefinished-aluminum, Z-shaped flashing.

C. Sealants: Latex, complying with ASTM C 834 and applicable requirements in Section 079200 "Joint Sealants" and recommended by sealant and substrate manufacturers for intended application.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

   1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

2. Install stairs with no more than 3/16-inch variation between adjacent treads and risers and with no more than 3/8-inch variation between largest and smallest treads and risers within each flight.

3.2 STANDING AND RUNNING TRIM INSTALLATION

A. Install cellular PVC trim to comply with manufacturer's written instructions.

B. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary.

1. Use scarf joints for end-to-end joints.
2. Stagger end joints in adjacent and related members.

C. Fit exterior joints to exclude water. Cope at returns and miter at corners to produce tight-fitting joints, with full-surface contact throughout length of joint. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.

3.3 PANEL INSTALLATION

A. Install panels to comply with manufacturer's written instructions and warranty requirements.

END OF SECTION 062013

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 062023 - INTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior trim.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with applicable rules of any rules-writing agency certified by the American Lumber Standard Committee's (ALSC) Board of Review. Grade lumber by an agency certified by the ALSC's Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber, mark grade stamp on end or back of each piece.

2.2 INTERIOR TRIM

A. Lumber Trim for Opaque Finish (Painted Finish):
1. Species and Grade: White woods; WWPA D Select.
2. Maximum Moisture Content: 15 percent.
3. Finger Jointing: Allowed.
4. Face Surface: Surfaced (smooth).

B. Softwood Moldings for Transparent Finish (Stain or Clear Finish): MMPA WM 4, N-grade wood moldings. Made to patterns included in MMPA's "WM/Series Softwood Moulding Patterns."

1. Species: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine Maximum Moisture Content: 15 percent with at least 85 percent of shipment at 12 percent or less.
2. Finger Jointing: Not allowed.
3. Matching: Selected for compatible grain and color.
4. Patterns: Shown on drawings.

C. Moldings for Opaque Finish (Painted Finish): Made to patterns included in MMPA's "WM/Series Softwood Moulding Patterns."

1. Softwood Moldings: MMPA WM 4, P grade.

a. Species: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine.
b. Maximum Moisture Content: 15 percent with at least 85 percent of shipment at 12 percent or less.

2. Finger Jointing: Allowed.

3. Patterns: Shown on drawings.

2.3 MISCELLANEOUS MATERIALS

A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.

B. Low-Emitting Materials: Adhesives shall comply with testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

C. Glue: Aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours.

3.2 INSTALLATION, GENERAL

A. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials.

1. Use concealed shims where necessary for alignment.
2. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
3. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.
4. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining interior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.
5. Coordinate interior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate interior finish carpentry.

3.3 STANDING AND RUNNING TRIM INSTALLATION

A. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available.

1. Do not use pieces less than 24 inches long, except where necessary.
2. Stagger joints in adjacent and related standing and running trim.
3. Miter at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint.
4. Use scarf joints for end-to-end joints.
5. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
6. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
7. Install trim after gypsum-board joint finishing operations are completed.
8. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting.
9. Fasten to prevent movement or warping.
10. Countersink fastener heads on exposed carpentry work and fill holes.

END OF SECTION 062023

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Full tear-off of roof system at areas of Police Station roof indicated on Drawings.
2. Removal of flashings and counterflashings unless noted otherwise.
3. Salvage of existing copings for reinstallation.

1.2 PREINSTALLATION MEETINGS

A. Preliminary Roofing Conference: Before starting removal Work, conduct conference at Project site.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Approved by warrantor of existing roofing system to work on existing roofing.

1.4 FIELD CONDITIONS

A. Existing Roofing System: SBS-modified bituminous roofing.

B. Owner will occupy portions of building immediately below reroofing area.

1. Conduct reroofing so Owner's operations are not disrupted.
2. Provide Owner with not less than 72 hours' written notice of activities that may affect Owner's operations.
3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.

C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

E. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.

1. Construction Drawings for existing roofing system are provided for Contractor's convenience and information, but they are not a warranty of existing conditions. They are

intended to supplement rather than serve in lieu of Contractor's own investigations. Contractor is responsible for conclusions derived from existing documents.

F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1. Remove only as much roofing in one day as can be made watertight in the same day.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 PREPARATION

A. Seal or isolate windows that may be exposed to airborne substances created in removal of existing materials.

B. Shut off rooftop utilities and service piping before beginning the Work.

C. Test existing roof drains to verify that they are not blocked or restricted.

1. Immediately notify Architect of any blockages or restrictions.

D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.

1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

F. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.

1. Prevent debris from entering or blocking roof drains and conductors.

a. Use roof-drain plugs specifically designed for this purpose.
b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.

a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

A. Notify Owner each day of extent of roof tear-off proposed for that day[

B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

C. Full Roof Tear-off: Where indicated on Drawings, remove existing roofing and other roofing system components down to the existing roof deck.

1. Remove substrate board vapor retarder roof insulation and cover board.
2. Remove base flashings and counter flashings.
3. Remove perimeter edge flashing and gravel stops.
4. Remove copings.
5. Remove expansion-joint covers.
6. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
7. Remove roof drains indicated on Drawings to be removed.
8. Remove wood blocking, curbs, and nailers.
9. Bitumen and felts that are firmly bonded to concrete decks are permitted to remain if felts are dry.

3.3 DECK PREPARATION

A. Inspect deck after tear-off of roofing system.

B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

3.4 BASE FLASHING REMOVAL

A. Remove existing base flashings.

1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain.

1. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish as existing.

END OF SECTION 070150.19

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Molded polystyrene foam-plastic board.
   2. Glass-fiber blanket.
   3. Spray-applied cellulosic insulation

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Product test reports.

B. Research reports.

PART 2 - PRODUCTS

2.1 EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD

A. Extruded polystyrene boards in this article are also called "XPS boards." Roman numeral designators in ASTM C 578 are assigned in a fixed random sequence, and their numeric order does not reflect increasing strength or other characteristics

B. Extruded Polystyrene Board, Type X <Insert drawing designation>: ASTM C 578, Type X, 15-psi minimum compressive strength; unfaced; maximum flame-spread and smoke-developed indexes of 25 and 450, respectively, per ASTM E 84.

C. Fire Propagation Characteristics: Passes NFPA 285 testing as part of an approved assembly.

2.2 GLASS-FIBER BLANKET

A. Glass-Fiber Blanket, Reinforced-Foil Faced ASTM C 665, Type III (reflective faced), Class A (faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vaporbarrier), faced with foil scrim, foil-scrim kraft, or foil-scrim polyethylene.

2.3 SPRAY-APPLIED CELLULOSIC INSULATION

A. Self-Supported, Spray-Applied Cellulosic Insulation ASTM C1149, Type III (materials containing an adhesive mixed with water during application; intended for application on attic floors), chemically treated for flame-resistance, processing, and handling

2.4 ACCESSORIES

A. Insulation for Miscellaneous Voids:
   1. Glass-Fiber Insulation: ASTM C 764, Type II, loose fill; with maximum flame-spread and smoke-developed indexes of 5, per ASTM E 84.

B. Insulation Anchors, Spindles, and Standoffs: As recommended by manufacturer.

C. Adhesive for Bonding Insulation: Product compatible with insulation and air and water barrier materials, and with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. See drawings for required thicknesses and R-values.

B. Comply with insulation manufacturer's written instructions applicable to products and applications.

C. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.

D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

E. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

F. Spray-Applied Cellulosic Insulation: Apply spray-applied insulation according to manufacturer's written instructions. Do not apply insulation until installation of pipes, ducts, conduits, wiring, and electrical outlets in walls is completed and windows, electrical boxes, and other items not indicated to receive insulation are masked.

3.2 INSTALLATION OF CAVITY-WALL INSULATION

A. Foam-Plastic Board Insulation: Install pads of adhesive spaced approximately 24 inches o.c. both ways on inside face and as recommended by manufacturer. Fit courses of insulation

between wall ties and other obstructions, with edges butted tightly in both directions. Press units firmly against inside substrates.

1. Supplement adhesive attachment of insulation by securing boards with two-piece wall ties designed for this purpose and specified in Section 042000 "Unit Masonry."

B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation.

3.3 SPRAYED CELLULOSE INSULATION

A. Install both the minimum number of bags per 1000sf and the minimum installed thickness as recommended by the manufacturer to insure the stated R-value has been reached

B. Install attic rulers every 300sf.

C. Maximum moisture content shall be 20% +/-2%.

D. Keep insulation 3 inches away from chimney flues, non-insulated contact (IC) recessed lights or other heat sources per ASTM 1015.06.

END OF SECTION 072100

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 072119 - FOAMED-IN-PLACE INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Open-cell spray polyurethane foam.

B. Related Requirements:

   1. Section 075700 "Coated Foamed Roofing" for spray polyurethane foam insulation used for roofing applications.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Product test reports.

B. Research reports.

PART 2 - PRODUCTS

2.1 OPEN-CELL SPRAY POLYURETHANE FOAM

A. Open-Cell Spray Polyurethane Foam: Spray-applied polyurethane foam using water as a blowing agent. Minimum density of 0.4 lb/cu. ft. and minimum aged R-value at 1-inch thickness of 3.4 deg F x h x sq. ft./Btu at 75 deg F.
   1. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

      a. Flame-Spread Index: 25 or less.
      b. Smoke-Developed Index: 450 or less.

   2. Fire Propagation Characteristics: Passes NFPA 285 testing as part of an approved assembly.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with insulation manufacturer's written instructions applicable to products and applications.

B. Spray insulation to envelop entire area to be insulated and fill voids.

C. Apply in multiple passes to not exceed maximum thicknesses recommended by manufacturer. Do not spray into rising foam.

END OF SECTION 072119

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered ethylene-propylene-diene-terpolymer (EPDM) roofing system on portions of Police Station roof indicated on drawings.
2. Roof insulation

1.2 PREINSTALLATION MEETINGS

A. Preliminary Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM Approvals' RoofNav listing.

B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness if insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation, thickness, and slopes.
5. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

C. Samples: For the following products:

1. Roof membrane and flashings of color required.

D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.

a. Submit evidence of complying with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

B. Product Test Reports: For components of roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.

C. Research reports.

D. Field Test Reports:
1. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.

E. Field quality-control reports.

F. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Certified statement from existing roof membrane manufacturer stating that existing roof warranty has not been affected by Work performed under this Section.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is listed in FM Approvals' RoofNav for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 30 years from Date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.

B. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746, ASTM D 4272, or the Resistance to Foot Traffic Test in FM Approvals 4470.

C. Wind Uplift Resistance: Design roofing system to resist the following wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897:

1. Zone 3 (Roof Area Corners): 175 psf.

a. Location: Entire areas of roof.

D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

2.2 ETHYLENE-PROPYLENE-DIENE-TERPOLYMER (EPDM) ROOFING

A. EPDM Sheet: ASTM D 4637/D 4637M, Type I, nonreinforced, EPDM sheet with factory-applied seam tape.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carlisle SynTec Incorporated.
b. Firestone Building Products.

2. Thickness: 90 mils, nominal.
3. Exposed Face Color: Black.

2.3 AUXILIARY ROOFING MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.

1. Adhesive and Sealants: Comply with VOC limits of authorities having jurisdiction.

B. Sheet Flashing: 60-mil-thick EPDM, partially cured or cured, according to application.

C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

D. Bonding Adhesive: Manufacturer's standard.

E. Seaming Material: Factory-applied seam tape, width as recommended by manufacturer.

F. Lap Sealant: Manufacturer's standard, single-component sealant.

G. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.

H. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.

I. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening components to substrate, and acceptable to roofing system manufacturer.

J. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, molded pipe boot flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

2.4 ROOF INSULATION

A. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
   1. Size: 48 by 48 inches.
   2. Thickness:

      a. Base Layer: 1-1/2 inches.
      b. Upper Layer: Inspect existing roof slopes. Provide insulation to slope 1/2”/ft minimum to roof scuppers.

B. Tapered Insulation: Provide factory-tapered insulation boards.

   1. Material: Match roof insulation.
   2. Minimum Thickness: 1/2 inch.
   3. Slope:

      a. Roof Field: 1/2” per foot .
      b. Saddles and Crickets: 1/2 inch per foot unless otherwise indicated on Drawings.

2.5 INSULATION ACCESSORIES

A. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.

B. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
   1. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

1. Verify that concrete substrate is visibly dry and free of moisture, and that minimum concrete internal relative humidity is not more than 75 percent, or as recommended by roofing system manufacturer when tested according to ASTM F 2170.
   a. Submit test reports within 24 hours of performing tests.

3.2 PREPARATION

A. Perform fastener-pullout tests according to roof system manufacturer's written instructions.

1. Submit test result within 24 hours of performing tests.

   a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 ROOFING INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions, FM Approvals' RoofNav assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.4 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Installation Over Concrete Decks:

1. Install base layer of insulation with joints staggered not less than 24 inches in adjacent rows end joints staggered not less than 12 inches in adjacent rows.
   a. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
   b. Make joints between adjacent insulation boards not more than 1/4 inch in width.

   c. Fill gaps exceeding 1/4 inch with insulation.
   d. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
   e. Loosely lay base layer of insulation units over substrate.
   f. Adhere base layer of insulation to concrete roof deck according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
      1) Set insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.

2) adhesive, firmly pressing and maintaining insulation in place.

2. Install upper layers of insulation and tapered insulation with joints of each layer offset not less than 12 inches from previous layer of insulation.

a. Staggered end joints within each layer not less than 24 inches in adjacent rows.
b. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
d. Make joints between adjacent insulation boards not more than 1/4 inch in width.

e. Fill gaps exceeding 1/4 inch with insulation.
f. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
g. Adhere each layer of insulation to substrate using adhesive according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
1) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.

3.5 ADHERED ROOFING INSTALLATION

A. Adhere roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.

B. Unroll membrane roof membrane and allow to relax before installing.

C. Start installation of roofing in presence of roofing system manufacturer's technical personnel.

D. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

E. Bonding Adhesive: Apply to substrate and underside of roof membrane at rate required by manufacturer, and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.

F. In addition to adhering, mechanically fasten roof membrane securely at terminations, penetrations, and perimeters.

G. Apply roof membrane with side laps shingled with slope of roof deck where possible.

H. Factory-Applied Seam Tape Installation: Clean and prime surface to receive tape.

1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
2. Apply lap sealant and seal exposed edges of roofing terminations.

3.6 BASE FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.

D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.

E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.7 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

END OF SECTION 075323

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 077253 - SNOW GUARDS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rail-type, seam-mounted snow guards.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include roof plans showing layouts and attachment details of snow guards.

   1. Include calculation of number and location of snow guards based on snow load, roof slope, roof type, components, spacings, and finish.

C. Samples.

1.3 INFORMATIONAL SUBMITTALS

A. Product test reports.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Performance Requirements: Provide snow guards that withstand exposure to weather and resist thermally induced movement without failure, rattling, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

   1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

B. Structural Performance:

   1. Snow Loads: 30psf..

2.2 RAIL-TYPE SNOW GUARDS

A. Seam-Mounted, Rail-Type Snow Guards:

1. Description: Snow guard rails fabricated from metal pipes, bars, or extrusions, anchored to brackets and equipped with two rails above standing seams and one between seams and clamps at each standing seam.
2. Material and Finish: Cast aluminum; clear anodized with 16 ga.stainless steel rail tubes.

B. Basis of Design

1. Berger F-Rail TBSS20 system
2. Similar systems conforming to specifications may be used.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, snow guard attachment, and other conditions affecting performance of the Work.

3.2 INSTALLATION

A. Install snow guards according to manufacturer's written instructions. Install one row attached at each standing seam with F-Rail in locations shown on drawings.

B. Attachment for Standing-Seam Metal Roofing:

1. Do not use fasteners that will penetrate metal roofing, or fastening methods that void metal roofing finish warranty.
2. Seam-Mounted, Rail-Type Snow Guards: Stainless-steel clamps attached to vertical ribs of standing-seam metal roof panels.

END OF SECTION 077253

SECTION 078413 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Penetrations in fire-resistance-rated walls.
2. Penetrations in horizontal assemblies.
3. Penetrations in smoke barriers.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Sustainable Design Submittals:

C. Product Schedule: For each penetration firestopping system. Include location, illustration of firestopping system, and design designation of qualified testing and inspecting agency.

1. Engineering Judgments: Where Project conditions require modification to a qualified testing and inspecting agency's illustration for a particular penetration firestopping system, submit illustration, with modifications marked, approved by penetration firestopping system manufacturer's fire-protection engineer as an engineering judgment or equivalent fire-resistance-rated assembly. Obtain approval of authorities having jurisdiction prior to submittal.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each penetration firestopping system, for tests performed by a qualified testing agency.

1.5 CLOSEOUT SUBMITTALS

A. Installer Certificates: From Installer indicating that penetration firestopping systems have been installed in compliance with requirements and manufacturer's written instructions.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: A firm that has been approved by FM Global according to FM Global 4991, "Approval of Firestop Contractors," or been evaluated by UL and found to comply with its "Qualified Firestop Contractor Program Requirements."

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not install penetration firestopping system when ambient or substrate temperatures are outside limits permitted by penetration firestopping system manufacturers or when substrates are wet because of rain, frost, condensation, or other causes.

B. Install and cure penetration firestopping materials per manufacturer's written instructions using natural means of ventilations or, where this is inadequate, forced-air circulation.

1.8 COORDINATION

A. Coordinate construction of openings and penetrating items to ensure that penetration firestopping systems can be installed according to specified firestopping system design.

B. Coordinate sizing of sleeves, openings, core-drilled holes, or cut openings to accommodate penetration firestopping systems.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics:

1. Perform penetration firestopping system tests by a qualified testing agency acceptable to authorities having jurisdiction.
2. Test per testing standards referenced in "Penetration Firestopping Systems" Article. Provide rated systems complying with the following requirements:

a. Penetration firestopping systems shall bear classification marking of a qualified testing agency.

1) UL in its "Fire Resistance Directory."
2) Intertek Group in its "Directory of Listed Building Products."
3) FM Global in its "Building Materials Approval Guide."

2.2 PENETRATION FIRESTOPPING SYSTEMS

A. Penetration Firestopping Systems: Systems that resist spread of fire, passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated. Penetration firestopping systems shall be compatible with one another, with the substrates forming openings, and with penetrating items if any.

B. Penetrations in Fire-Resistance-Rated Walls: Penetration firestopping systems with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg (2.49 Pa).

1. F-Rating: Not less than the fire-resistance rating of constructions penetrated.

C. Penetrations in Horizontal Assemblies: Penetration firestopping systems with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg (2.49 Pa).

1. F-Rating: At least one hour, but not less than the fire-resistance rating of constructions penetrated.
2. T-Rating: At least one hour, but not less than the fire-resistance rating of constructions penetrated except for floor penetrations within the cavity of a wall.
3. W-Rating: Provide penetration firestopping systems showing no evidence of water leakage when tested according to UL 1479.

D. Penetrations in Smoke Barriers: Penetration firestopping systems with ratings determined per UL 1479, based on testing at a positive pressure differential of 0.30-inch wg (74.7 Pa).

1. L-Rating: Not exceeding 5.0 cfm/sq. ft. (0.025 cu. m/s per sq. m) of penetration opening at and no more than 50-cfm (0.024-cu. m/s) cumulative total for any 100 sq. ft. (9.3 sq. m) at both ambient and elevated temperatures.

E. Exposed Penetration Firestopping Systems: Flame-spread and smoke-developed indexes of less than 25 and 450, respectively, per ASTM E 84.

F. Accessories: Provide components for each penetration firestopping system that are needed to install fill materials and to maintain ratings required. Use only those components specified by penetration firestopping system manufacturer and approved by qualified testing and inspecting agency for conditions indicated.

1. Permanent forming/damming/backing materials.
2. Substrate primers.
3. Collars.
4. Steel sleeves.

2.3 FILL MATERIALS

A. Cast-in-Place Firestop Devices: Factory-assembled devices for use in cast-in-place concrete floors and consisting of an outer sleeve lined with an intumescent strip, a flange attached to one end of the sleeve for fastening to concrete formwork, and a neoprene gasket.

B. Latex Sealants: Single-component latex formulations that do not re-emulsify after cure during exposure to moisture.

C. Firestop Devices: Factory-assembled collars formed from galvanized steel and lined with intumescent material sized to fit specific diameter of penetrant.

D. Intumescent Composite Sheets: Rigid panels consisting of aluminum-foil-faced intumescent elastomeric sheet bonded to galvanized-steel sheet.

E. Intumescent Putties: Nonhardening, water-resistant, intumescent putties containing no solvents or inorganic fibers.

F. Intumescent Wrap Strips: Single-component intumescent elastomeric sheets with aluminum foil on one side.

G. Mortars: Prepackaged dry mixes consisting of a blend of inorganic binders, hydraulic cement, fillers and lightweight aggregate formulated for mixing with water at Project site to form a nonshrinking, homogeneous mortar.

H. Pillows/Bags: Reusable heat-expanding pillows/bags consisting of glass-fiber cloth cases filled with a combination of mineral-fiber, water-insoluble expansion agents, and fire-retardant additives. Where exposed, cover openings with steel-reinforcing wire mesh to protect pillows/bags from being easily removed.

I. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

J. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants.

2.4 MIXING

A. Penetration Firestopping Materials: For those products requiring mixing before application, comply with penetration firestopping system manufacturer's written instructions for accurate proportioning of materials, water (if required), type of mixing equipment, selection of mixer speeds, mixing containers, mixing time, and other items or procedures needed to produce products of uniform quality with optimum performance characteristics for application indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning: Before installing penetration firestopping systems, clean out openings immediately to comply with manufacturer's written instructions and with the following requirements:

1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of penetration firestopping materials.
2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with penetration firestopping materials. Remove loose particles remaining from cleaning operation.
3. Remove laitance and form-release agents from concrete.

B. Prime substrates where recommended in writing by manufacturer using that manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.

3.3 INSTALLATION

A. General: Install penetration firestopping systems to comply with manufacturer's written installation instructions and published drawings for products and applications.

B. Install forming materials and other accessories of types required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths required to achieve fire ratings.

1. After installing fill materials and allowing them to fully cure, remove combustible forming materials and other accessories not forming permanent components of firestopping.

C. Install fill materials by proven techniques to produce the following results:

1. Fill voids and cavities formed by openings, forming materials, accessories and penetrating items to achieve required fire-resistance ratings.
2. Apply materials so they contact and adhere to substrates formed by openings and penetrating items.
3. For fill materials that will remain exposed after completing the Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

3.4 IDENTIFICATION

A. Wall Identification: Permanently label walls containing penetration firestopping systems with the words "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS," using lettering not less than 3 inches (76 mm) high and with minimum 0.375-inch (9.5-mm) strokes.

1. Locate in accessible concealed floor, floor-ceiling, or attic space at 15 feet (4.57 m) from end of wall and at intervals not exceeding 30 feet (9.14 m).

B. Penetration Identification: Identify each penetration firestopping system with legible metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches (150 mm) of penetration firestopping system edge so labels are visible to anyone seeking to remove penetrating items or firestopping systems. Use mechanical fasteners or self-adhering-type labels with adhesives capable of permanently bonding labels to surfaces on which labels are placed. Include the following information on labels:

1. The words "Warning - Penetration Firestopping - Do Not Disturb. Notify Building Management of Any Damage."
2. Contractor's name, address, and phone number.
3. Designation of applicable testing and inspecting agency.
4. Date of installation.
5. Manufacturer's name.
6. Installer's name.

3.5 FIELD QUALITY CONTROL

A. Owner will engage a qualified testing agency to perform tests and inspections according to ASTM E 2174.

B. Where deficiencies are found or penetration firestopping system is damaged or removed because of testing, repair or replace penetration firestopping system to comply with requirements.

C. Proceed with enclosing penetration firestopping systems with other construction only after inspection reports are issued and installations comply with requirements.

3.6 CLEANING AND PROTECTION

A. Clean off excess fill materials adjacent to openings as the Work progresses by methods and with cleaning materials that are approved in writing by penetration firestopping system manufacturers and that do not damage materials in which openings occur.

B. Provide final protection and maintain conditions during and after installation that ensure that penetration firestopping systems are without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, immediately cut out and remove damaged or deteriorated penetration firestopping material and install new materials to produce systems complying with specified requirements.

3.7 PENETRATION FIRESTOPPING SYSTEM SCHEDULE

A. Where UL-classified systems are indicated, they refer to system numbers in UL's "Fire Resistance Directory" under product Category XHEZ.

B. Where Intertek Group-listed systems are indicated, they refer to design numbers in Intertek Group's "Directory of Listed Building Products" under "Firestop Systems."

C. Where FM Global-approved systems are indicated, they refer to design numbers listed in FM Global's "Building Materials Approval Guide" under "Wall and Floor Penetration Fire Stops."

D. Penetration Firestopping Systems with No Penetrating Items:

1. 3M™ Fire Barrier Water Tight Sealant 1003 SL

E. Penetration Firestopping Systems for Metallic Pipes, Conduit, or Tubing:

1. 3M™ Fire Barrier Water Tight Sealant 1003 SL

F. Penetration Firestopping Systems for Electrical Cables:

1. 3M™ Fire Barrier Water Tight Sealant 1003 SL

END OF SECTION 078413

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Nonstaining silicone joint sealants.
   2. Mildew-resistant joint sealants.
   3. Latex joint sealants.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product.

B. Samples: For each kind and color of joint sealant required.

C. Joint-Sealant Schedule: Include the following information:

   1. Joint-sealant application, joint location, and designation.
   2. Joint-sealant manufacturer and product name.
   3. Joint-sealant formulation.
   4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

A. Product test reports.

B. Preconstruction laboratory test reports.

C. Preconstruction field-adhesion-test reports.

D. Field-adhesion-test reports.

E. Sample warranties.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.

1.6 PRECONSTRUCTION TESTING

A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.

1. Adhesion Testing: Use ASTM C 794 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
2. Stain Testing: Use ASTM C 1248 to determine stain potential of sealant when in contact with masonry substrates.

B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates. Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1.1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

1.7 WARRANTY

A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

A. Colors of Exposed Joint Sealants: [As selected by Architect from manufacturer's full range].

2.2 NONSTAINING SILICONE JOINT SEALANTS

A. Nonstaining Joint Sealants: No staining of substrates when tested according to ASTM C 1248.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Dow Corning Corporation.
b. GE Construction Sealants; Momentive Performance Materials Inc.
c. Pecora Corporation.

B. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. May National Associates, Inc.; a subsidiary of Sika Corporation.
b. Pecora Corporation.
c. Tremco Incorporated.

2.3 JOINT-SEALANT BACKING

A. Cylindrical Sealant Backings: ASTM C 1330, Type O (open-cell material), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.
2. Some areas contain asbestos, which must be removed as hazardous materials. See drawings for locations and Hazardous Materials section of specifications for requirements.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.

3.2 INSTALLATION OF JOINT SEALANTS

A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

1. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

3.3 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

1. Extent of Testing: Test completed and cured sealant joints as follows:

a. Perform 10 tests for the first 1000 feet of joint length for each kind of sealant and joint substrate.
b. Perform one test for each 1000 feet of joint length thereafter or one test per each floor per elevation.

2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.4 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces[<**JS-#**>].

1. Joint Locations:.
   a. Joints at perimeters of windows and doors where noted on drawings.
   b. Other joints as indicated on Drawings.

2. Joint Sealant: Silicone, nonstaining, S, NS, 50, NT.
3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors].

B. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces not subject to significant movement.

1. Joint Locations:

   a. Control joints on exposed interior surfaces of exterior walls.
   b. Perimeter joints between interior wall surfaces and frames of interior doors and windows.
   c. Non-movement exposed joints between dissimilar materials
   d. Other joints as indicated on Drawings.

2. Joint Sealant: Acrylic latex.
3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 079200

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 081416 - FLUSH WOOD DOORS & HOLLOW METAL FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid-core doors with faces at locations noted on drawings. These locations include replacement doors in Basement of Library, new doors at exit at Library, and new door to sump pump closet at Basement of Police Station.

2. Hollow Metal Frames for the noted doors unless noted otherwise.
.

B. Related Requirements:

1.2 ACTION SUBMITTALS

A. Product Data: For each type of door.

1.3 INFORMATIONAL SUBMITTALS

A. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

1.4 QUALITY ASSURANCE

PART 2 - PRODUCTS

2.1 FLUSH WOOD DOORS, GENERAL

A. Quality Standard: In addition to requirements specified, comply with AWI's, AWMAC's, and WDMA I.S.1-A, "Architectural Wood Flush Doors."

1. Provide AWI Quality Certification Labels indicating that doors comply with requirements of grades specified.

B. WDMA I.S.1-A Performance Grade:
1. Extra Heavy Duty: exits.

C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

1. Cores: Provide core specified or mineral core as needed to provide fire-protection rating indicated.
2. Edge Construction: Provide edge construction with intumescent seals concealed by outer stile. Comply with specified requirements for exposed edges.
3. Pairs: Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals. Comply with specified requirements for exposed edges.

D. Particleboard-Core Doors:

1. Particleboard: ANSI A208.1, Grade LD-1, made with binder containing no urea-formaldehyde.
2. Blocking: Provide wood blocking in particleboard-core doors as needed to eliminate through-bolting hardware.

E. Mineral-Core Doors:

1. Core: Noncombustible mineral product complying with requirements of referenced quality standard and testing and inspecting agency for fire-protection rating indicated.
2. Blocking: Provide composite blocking with improved screw-holding capability approved for use in doors of fire-protection ratings indicated as needed to eliminate through-bolting hardware.
3. Edge Construction: At hinge stiles, provide laminated-edge construction with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.

2.2 VENEER-FACED DOORS FOR TRANSPARENT FINISH

A. Interior Solid-Core Doors

1. Grade: Custom (Grade A faces).
2. Species: Match existing.
3. Cut: Match existing
4. Match between Veneer Leaves: Pleasing match.
5. Assembly of Veneer Leaves on Door Faces: Center-balance match.
6. Pair and Set Match: Provide for doors hung in same opening or separated only by mullions.
7. Core: Mineral-core at rated doors, particle board core at non-rated doors.
8. Construction: Five or seven plies. Stiles and rails are bonded to core, then entire unit is abrasive planed before veneering. Faces are bonded to core using a hot press.

2.3 LIGHT FRAMES AND LOUVERS

A. Metal Frames for Light Openings in Fire-Rated Doors: Manufacturer's standard frame formed of 0.048-inch-thick, cold-rolled steel sheet; with baked-enamel- or powder-coated finish; and approved for use in doors of fire-protection rating indicated.

2.4 HOLLOW METAL FRAMES

A. Standards: NAAMM-HMMA 860; SDI A250.4, Physical Performance Level A.

B. Frames:
1. Materials: Uncoated steel sheet, minimum thickness of 0.059 inch.
2. Construction: Knocked down.

2.1 FRAME ANCHORS

A. Jamb Anchors:

1. Type: Anchors of minimum size and type required by applicable door and frame standard, and suitable for performance level indicated.
2. Quantity: Minimum of three anchors per jamb, with one additional anchor for frames with no floor anchor. Provide one additional anchor for each 24 inches of frame height above 7 feet.

B. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor.

C. Material: ASTM A 879/A 879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.

2.2 FABRICATION

A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.

1. Comply with NFPA 80 requirements for fire-rated doors.

B. Factory machine doors for hardware that is not surface applied.

C. Openings: Factory cut and trim openings through doors.

1. Light Openings: Trim openings with moldings of material and profile indicated.
2. Glazing: Factory install glazing in doors indicated to be factory finished. Comply with applicable requirements in Section 088000 "Glazing."
3. Louvers: Factory install louvers in prepared openings.

D. Hollow-Metal Frames: Fabricate in one piece except where handling and shipping limitations require multiple sections. Where frames are fabricated in sections, provide alignment plates or angles at each joint, fabricated of metal of same or greater thickness as frames.
1. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
2. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.

a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.

E. Hardware Preparation: Factory prepare hollow-metal frames to receive templated mortised hardware, and electrical wiring; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
   1. Comply with BHMA A156.115 for preparing hollow-metal frames for hardware.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Hardware: For installation, see Section 087111 "Door Hardware (Descriptive Specification)."

B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.

   1. Install fire-rated doors according to NFPA 80.
   2. Install smoke- and draft-control doors according to NFPA 105.

C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.

   1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/8 inch from bottom of door to top of decorative floor finish or covering unless otherwise indicated. Where threshold is shown or scheduled, provide 1/4 inch from bottom of door to top of threshold unless otherwise indicated.

      a. Comply with NFPA 80 for fire-rated doors.

D. Finish doors in accordance with Section 099123 Painting.

E. Hollow-Metal Frames: Comply with SDI A250.11.

   1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces without damage to completed Work.

   2. Fire-Rated Openings: Install frames according to NFPA 80.
   3. Floor Anchors: Secure with postinstalled expansion anchors.

      a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.

   4. Solidly pack mineral-fiber insulation inside frames.
   5. Installation Tolerances: Adjust hollow-metal frames to the following tolerances:

      a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.

b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.

PART 4-SCHEDULE

Fire exit doors at Library (base bid):
Doors: Pair 3’0”x7’-0” x 1-3/4” 60min B Label doors, veneer to match existing doors.
Finish: Varnish-see Section 099123 Painting
Frames: Rated KD hollow metal with integral mullion with wrap around frames for metal studs and gypsum board
Hardware: See 087111 Hardware

Closet door at Police Station
Door: 3’0”x7’-0” x 1-3/4”, veneer to match existing doors.
Finish: Varnish-see Section 099123 Painting
Frames: KD hollow metal with wrap around frames for metal studs and gypsum board
Hardware: See 087111 Hardware

Elevator Machine Room door at Town Hall
Door: 3’0”x7’-0” x 1-3/4”, 45min, B Label, veneer to match existing doors
Finish: Varnish-see Section 099123 Painting
Frame: Rated KD hollow metal with wrap around frame for metal studs and gypsum board
Hardware: Reuse existing hardware

Electrical Room at Town Hall
Door: 3’0”x7’-0” x 1-3/4”, veneer to match existing doors.
Finish: Varnish-see Section 099123 Painting
Frame: KD hollow metal with wrap around frame for metal studs and gypsum board
Hardware: Reuse existing hardware

Basement stair doors at Town Hall (2 doors)
Doors: 3’0”x7’-0” x 1-3/4”, 90min B Label, veneer to match existing doors.
Finish: Varnish-see Section 099123 Painting
Frames: Rated KD hollow metal with wrap around frames for metal studs and gypsum board
Hardware: Reuse existing hardware except replace existing passage sets with fire exit hardware. See 087111 Hardware.

END OF SECTION 081416

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Storefront framing and glazing for Main Entrance and North Entrance at Town Hall.
2. Manual-swing entrance doors.

B. Related Work by Other Contractors
1. Coordinate with Owner's vendors who will remove and reinstall existing automatic closer system, electric locks and cameral system under separate contracts.
2. See drawings for locations.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.

1. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
2. Include point-to-point wiring diagrams.

C. Samples: For each type of exposed finish required.

D. Entrance Door Hardware Schedule: Prepared by or under supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams.

E. Delegated-Design Submittal: For aluminum-framed entrances and storefronts indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Energy Performance Certificates: NFRC-certified energy performance values from manufacturer.

B. Product test reports.

C. Source quality-control reports.

D. Field quality-control reports.

E. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.

1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design aluminum-framed entrances and storefronts.

B. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this

Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure, including, but not limited to, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
2. Failure also includes the following:

    a. Thermal stresses transferring to building structure.
    b. Glass breakage.
    c. Noise or vibration created by wind and thermal and structural movements.
    d. Loosening or weakening of fasteners, attachments, and other components.
    e. Failure of operating units.

C. Structural Loads:

1. Wind Loads: As required by ICC-2012, Chapter 16 for Connecticut.

D. Deflection of Framing Members: At design wind pressure, as follows:

1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane not exceeding 1/175 of the glass edge length for each individual glazing lite or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller.

3. Cantilever Deflection: Where framing members overhang an anchor point, as follows:

    a. Perpendicular to Plane of Wall: No greater than 1/240 of clear span plus 1/4 inch for spans greater than 11 feet 8-1/4 inches or 1/175 times span, for spans of less than 11 feet 8-1/4 inches.

E. Structural: Test according to ASTM E 330/E 330M as follows:

1. When tested at positive and negative wind-load design pressures, storefront assemblies, including entrance doors, do not evidence deflection exceeding specified limits.
2. When tested at 150 percent of positive and negative wind-load design pressures, storefront assemblies, including entrance doors and anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

F. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:

1. Fixed Framing and Glass Area:

    a. Maximum air leakage of 0.06 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft..

2. Entrance Doors:

a. Single Doors: Maximum air leakage of 1.0 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft..

G. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:

1. No evidence of water penetration through fixed glazing and framing areas, including entrance doors, when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft..

H. Energy Performance: Certify and label energy performance according to NFRC as follows:

1. Thermal Transmittance (U-factor): Fixed glazing and framing areas as a system shall have U-factor of not more than 0.45 Btu/sq. ft. x h x deg F as determined according to NFRC 100.
2. Solar Heat Gain Coefficient (SHGC): Fixed glazing and framing areas as a system shall have SHGC of no greater than 0.26 as determined according to NFRC 200.
3. Condensation Resistance: Fixed glazing and framing areas as a system shall have an NFRC-certified condensation resistance rating of no less than 55 as determined according to NFRC 500.

4. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 STOREFRONT SYSTEMS

A. Basis of Design: EFCO Corporation Series 403 1 `1`1`` Storefront System. Products of other manufacturers meeting specification criteria of the Series 5600 system may be provided upon submission of documentation of equality and approved in writing by the Architect.

B. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Exterior Framing Construction: Thermally broken.
2. Glazing System: Retained mechanically with gaskets on four sides.
3. Finish: High-performance organic finish.
4. Fabrication Method: Field-fabricated stick system.
5. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
6. Steel Reinforcement: As required by manufacturer.

C. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.

D. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

2.3 ENTRANCE DOOR SYSTEMS

A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing or automatic operation.

1. Door Construction: 1-3/4-inch overall thickness, with minimum 0.125-inch- thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.

    a. Thermal Construction: High-performance plastic connectors separate aluminum members exposed to the exterior from members exposed to the interior.

2. Door Design: As indicated.
3. Glazing Stops and Gaskets: Beveled , snap-on, extruded-aluminum stops and preformed gaskets.

    a. Provide nonremovable glazing stops on outside of door.

2.4 ENTRANCE DOOR HARDWARE

A. General: Provide entrance door hardware and entrance door hardware sets indicated in "Entrance Door Hardware Sets" Article for each entrance door, to comply with requirements in this Section.

1. Entrance Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and products complying with BHMA standard referenced.
2. Sequence of Operation: Provide electrified door hardware function, sequence of operation, and interface with other building control systems indicated.
3. Opening-Force Requirements:

    a. Egress Doors: Not more than 15 lbf to release the latch and not more than 30 lbf to set the door in motion and not more than 15 lbf to open the door to its minimum required width.

B. Designations: Requirements for design, grade, function, finish, quantity, size, and other distinctive qualities of each type of entrance door hardware are indicated in "Entrance Door Hardware Sets" Article. Products are identified by using entrance door hardware designations as follows:
1. References to BHMA Standards: Provide products complying with these standards and requirements for description, quality, and function.

C. Cylinders: Keyed to existing master key system

D. Butt Hinges: BHMA A156.1, Grade 1, radius corner.

1. Nonremovable Pins: Provide setscrew in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while entrance door is closed.
2. Exterior Hinges: Stainless steel, with stainless-steel pin.
3. Quantities:

    a. For doors up to 87 inches high, provide three hinges per leaf.

E. Mortise Auxiliary Locks: BHMA A156.5, Grade 1.

F. Panic Exit Devices: BHMA A156.3, Grade 1, listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for panic protection, based on testing according to UL 305.

G. Cylinders: BHMA A156.5, Grade 1.

1. Keying: Master key system. Permanently inscribe each key with a visual key control number and include notation "DO NOT DUPLICATE".

H. Strikes: Provide strike with black-plastic dust box for each latch or lock bolt; fabricated for aluminum framing.

I. Operating Trim: BHMA A156.6.

J. Closers: BHMA A156.4, Grade 1, with accessories required for a complete installation, sized as required by door size, exposure to weather, and anticipated frequency of use; adjustable to comply with field conditions and requirements for opening force.

K. Concealed Overhead Holders and Stops: BHMA A156.8, Grade 1.

L. Door Stops: BHMA A156.16, Grade 1, floor or wall mounted, as appropriate for door location indicated, with integral rubber bumper.

M. Weather Stripping: Manufacturer's standard replaceable components.

1. Compression Type: Made of ASTM D 2000 molded neoprene or ASTM D 2287 molded PVC.
2. Sliding Type: AAMA 701/702, made of wool, polypropylene, or nylon woven pile with nylon-fabric or aluminum-strip backing.

N. Weather Sweeps: Manufacturer's standard exterior-door bottom sweep with concealed fasteners on mounting strip.

O. Thresholds: BHMA A156.21 raised thresholds beveled with a slope of not more than 1:2, with maximum height of 1/2 inch.

P. Finger Guards: Manufacturer's standard collapsible neoprene or PVC gasket anchored to frame hinge-jamb at center-pivoted doors.

2.5 GLAZING

A. Glazing: 1” insulating glass with low-E pyrolytic coating on second surface and argon filled interstitial space, except doors may be ¾”.

B. Safety Glazing: All glass within doors and all glass in sidelights identified with an “S” on the drawings shall conform to impact requirements of CPSC 16 CFR Part 1201 and identified by the manufacturer’s markings on each pane.

C. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.

D. Glazing Sealants: As recommended by manufacturer.

2.6 MATERIALS

A. Sheet and Plate: ASTM B 209.

B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.

C. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.

D. Structural Profiles: ASTM B 308/B 308M.

E. Steel Reinforcement:

1. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
2. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
3. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.
4. Primer: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.

2.7 FABRICATION

A. Form or extrude aluminum shapes before finishing.

B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

C. Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fitted joints with ends coped or mitered.
3. Physical and thermal isolation of glazing from framing members.
4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
5. Provisions for field replacement of glazing from interior.
6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.

F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.

G. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.

H. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.8 ALUMINUM FINISHES

A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

1. Color and Gloss: White gloss.

PART 3- EXECUTION

3.1 FIELD VERIFICATION

A. Prior to beginning shop drawings field-verify all opening sizes and conditions for conformance with Architect’s documents.

3.1 INSTALLATION

A. General:

2. Comply with manufacturer's written instructions.
3. Do not install damaged components.
4. Fit joints to produce hairline joints free of burrs and distortion.
5. Rigidly secure nonmovement joints.
6. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
7. Seal perimeter and other joints watertight unless otherwise indicated.

B. Metal Protection:

1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Set continuous sill members and flashing in full sealant bed, as specified in Section 079200 "Joint Sealants," to produce weathertight installation.

D. Install components plumb and true in alignment with established lines and grades.

E. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.

F. Install glazing as specified in Section 088000 "Glazing."

G. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.

1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware according to entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.

3.2 ENTRANCE DOOR HARDWARE SETS (ALL DOORS SIMILAR)

A. Hinges: 4-1/2”x4”, ball bearing, manufacturer’s standard

B. Mortise Lock: Adams Rite MS 1850A with two 1-5/32” diameter 5 pin cylinders

1. At Town Hall Accessible Entrance and Library Exterior Door the existing electric locks will be removed and reinstalled by other contractors.

C. Closers: Parallel arm, LCN 1260

2. At the Town Hall Accessible Entrance the existing automatic door operator will be removed and reinstalled by another contractor.

D. Exit Hardware: Mortise Exit Device, Adams Rite 8400 with Lever Handle

E. Saddle: Pemko 1/2” x 7” ADA-compliant

END OF SECTION 084113

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 084123 - FIRE RATED GLASS AND FRAMING SYSTEMS (Alternate #2)

1.1 SUMMARY

A. Section Includes:
   1. Fire rated door and framing systems for installation as full vision fire rated doors sidelights windows in interior openings.

1.2 REFERENCES

A. American Welding Society (AWS)

   1. AWS D1.3 - Structural Welding Code - Sheet Steel; 2007

B. Builders Hardware Manufacturers Association, Inc.
   1. BHMA A156 - American National Standards for door hardware; 2006 (ANSI/BHMA A156).

C. National Fire Protection Association (NFPA):
   1. NFPA 80: Standard for Fire Doors and Fire Windows.
   2. NFPA 251: Standard Methods of Tests of Fire Endurance of Building Construction and Materials.
   3. NFPA 252: Standard Methods of Fire Tests of Door Assemblies.
   4. NFPA 257: Standard on Fire Test for Window and Glass Block Assemblies.

D. Underwriters Laboratories, Inc. (UL):
   1. UL 9: Fire Tests of Window Assemblies.
   2. UL 10B: Fire Tests of Door Assemblies.
   3. UL 10C: Positive Pressure Fire Tests of Door Assemblies.

E. American National Standards Institute (ANSI):
   1. ANSI Z97.1: Standard for Safety Glazing Materials Used in Buildings.

F. Consumer Product Safety Commission (CPSC):
   1. CPSC 16 CFR 1201 Categories I and II: Safety Standard for Architectural Glazing Materials.

1.3 DEFINITIONS

A. Manufacturer: A firm that produces primary glass, fabricated glass or framing as defined in referenced glazing publications.

1.4 SUBMITTALS

A. Submit in accordance with Sections 013400 and 013410.

B. Product Data:
   1. Technical Information: Submit latest edition of manufacturer's product data providing product descriptions, technical data, Underwriters Laboratories, Inc. listings and installation instructions.

C. Shop Drawings:
   1. Include plans, elevations and details of product showing component dimensions; framed opening requirements, dimensions, tolerances, and attachment to structure

D. Hardware schedule: list of manufacture supplied hardware and verification of cylinder size complying with Section 08 71 00

E. Samples: For following products:
   1. Glass sample-as provided by manufacturer
   2. Sample of frame
   3. Verification of sample of selected finish

F. Glazing Schedule: Use same designations indicated on drawings for glazed openings in preparing a schedule listing glass types and thicknesses for each size opening and location.

G. Warranties: Submit manufacturer's warranty.

H. Certificates of compliance from glass and glazing materials manufacturers attesting that glass and glazing materials furnished for project comply with requirements.
   1. Separate certification will not be required for glazing materials bearing manufacturer's permanent label designating type and thickness of glass, provided labels represent a quality control program involving a recognized certification agency or independent testing laboratory acceptable to authority having jurisdiction.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to
   1. International Accreditation Service for Testing Body-Building Materials and Systems
      a. Fire Testing
         1) ASTM Standards E 119
         2) CPSC Standards 16 CFR 1201
         3) NFPA Standards 251, 252, 257
         4) UL Standards 9, 10B, 10C, 1784, UL Subject 63
         5) BS 476; Part 22: 1987
         6) EN 1634-1
         7) CAN Standards S 101, S 104, S 106

B. Installer Qualifications: An experienced installer who has completed glazing similar in material, design, and extent to that indicated for Project and whose work has resulted in construction with a record of successful in-service performance.

C. Source Limitations for Glazing Accessories: Obtain framing system, glazing and glazing accessories from one source for each product and installation method indicated.

D. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are classified and labeled by UL, for fire ratings indicated, based on testing according to NFPA 252. Assemblies must be factory-welded or come complete with factory-installed mechanical joints and must not require job site fabrication.

E. Fire-Rated Window Assemblies: Assemblies complying with NFPA 80 that are classified and labeled by UL, for fire ratings indicated, based on testing according to NFPA 257. Assemblies must be factory-welded or come complete with factory-installed mechanical joints and must not require job site fabrication.

F. Listings and Labels - Fire Rated Assemblies: Under current follow-up service by Underwriters Laboratories® maintaining a current listing or certification. Label assemblies accordance with limits of manufacturer's listing.

G. Regulatory Requirements: Comply with provisions of the following:
   1. Where indicated to comply with accessibility requirements, comply with ANSI A117.1, as follows:
      a. Handles, Pulls, Latches, Locks, and other Operating Devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
   2. IBC 2012 Chapter 10 Means of Egress: Comply with the following for means of egress doors:
      a. Latches, Locks, and Exit Devices: Not more than 15 lbf (67 N) to release the latch. Locks shall not require the use of a key, tool, or special knowledge for operation.
      b. Door Closers: Not more than 30 lbf (133 N) to set door in motion and not more than 15 lbf (67 N) to open door to minimum required width.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver, store and handle under provisions specified by manufacturer.

1.7 PROJECT CONDITIONS

A. Obtain field measurements prior to fabrication of frame units.

B. Coordinate the work of this section with others effected including but not limited to: other interior and/or exterior envelope components and door hardware beyond that provided by this section

1.8 WARRANTY

A. Provide the manufacturer's standard five-year manufacturer warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS - FIRE RATED DOOR ASSEMBLY, WINDOWS

A. Technical Glass Products systems and materials are used as the basis of design. Products of other manufacturers meeting design and technical criteria will be acceptable.

B. Glass Material: [Pilkington Pyrostop®] fire-rated glazing as fabricated and distributed by Technical Glass Products, 8107 Bracken Place SE, Snoqualmie, WA 98065 (800-426-0279) fax (800-451-9857) e-mail sales@fireglass.com, web site http://www.fireglass.com.

C. Frame System: "Fireframes® Designer Series by TGP" fire-rated steel frame system as manufactured and supplied by Technical Glass Products, 8107 Bracken Place SE, Snoqualmie, WA 98065 (800-426-0279) fax (800-451-9857) e-mail sales@fireglass.com web site http://www.fireglass.com.

2.2 PERFORMANCE REQUIREMENTS

A. Fire Rating Requirements
   1. Duration -- Doors: Capable of providing a fire rating for 60 minutes.
   2. Duration-- Window Assembly: Capable of providing a fire rating for 60 minutes.

B. Delegated design: For the performance requirements listed below requiring structural design provide data, calculations and drawings shall be provided signed and sealed by an engineer licensed in the State of Connecticut.

C. Design Requirements:
   1. Dimensions – Door and Framing:
      a. Door framing face dimension: 1 15/16-inch.
      b. Depth of door framing: 1 15/16-inch.
      c. Door style face dimension: 5- 1/8-inch (12" bottom stile)).
      d. Depth of stile, header, sill and cross rail: 1-TR
      e. 15/16-inch
   2. Dimensions -- Window Assembly:
      a. Perimeter framing face dimension: 2 3/4-inch at head, sill and jamb.
      b. Horizontal and/or vertical mullions: 3 9/16-inch on the face.
      c. Depth of perimeter and mullion: 1 15/16-inch.
   3. Construction: Narrow-profile, roll-formed steel architectural grade specialty fire doors. Conventional break-shape type hollow metal steel fire-rated doors will not be considered an acceptable substitute for the Fireframes Designer Series doors specified in this section as they do not conform to the project design intent and/or aesthetic and quality standards.
      a. Knock down frames are permitted.

2.3 MATERIALS - GLASS

A. Fire Rated Glazing: ASTM C 1036 and ASTM C 1048; composed of laminated ceramic specially tempered glazing material.

B. Thickness of Glazing Material: 7/8" Pilkington Pyrostop®.

C. Approximate Visible Transmission: Varies with thickness (approximate range 88 percent).

D. Logo: Each piece of fire-rated glazing shall be labeled with a permanent logo including name of product, manufacturer, testing laboratory (UL® only), fire rating period, safety glazing standards, and date of manufacture.

E. Performance:
1. Glass must be rated to stop fire from either direction and must meet all testing requirements including the required hose-stream test.
2. Glass in doors and sidelights must meet the requirements of ANSI Z97.1 Standard for Safety Glass

2.4 MATERIALS – STEEL FRAMES AND DOORS

A. Steel Framing System including 60-minute rated doors, 60-minute rated windows.
1. Frame: Steel profiled formed tubing.
2. Fasteners: As recommended by manufacturer
3. Glazing Accessories: calcium silicate setting blocks.
4. Glazing Compounds:
a. Pilkington Pyrostop®: Approved closed cell PVC tape, Fibrefrax, or pure silicone sealant..

2.5 FABRICATION

A. Furnish frame assemblies pre-welded or "KD."
1. When necessary, splice frames too large for shop fabrication or shipping or to fit in available building openings.
2. Fit with suitable fasteners.
3. Knock-down door perimeter frames are not permitted

B. Field glaze door and frame assemblies.

C. Factory prepare steel door assemblies and install all hardware.

D. Fabrication Dimensions: Fabricate to fire-rated field dimensions.

E. Obtain approved shop drawings prior to fabrication.

2.6 FINISHES, GENERAL

A. Finish frames after assembly.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable. Noticeable variations in the same piece are not acceptable.

2.7 DOOR HARDWARE

A. Furnish hardware with 60 minute fire door by the manufacturer.

Balance of hardware by others

B. Operating hardware for Fireframes® Designer Series **Active-Active Pair of Doors Outswing with Exit Device**. Each pair to have the following.

	Item	Description	Manufacturer	Finish *
6	Hanging Devices	Weld on Pivots	Technical Glass Products	PTM
2	Fire Exit Device	F9000series rim device	Dorma	630
2	Lever Trim	ZT08 Tubular lever handles	Dorma	630
1	Cylinder	ANSI Mortise Schlage C Keyway	Technical Glass Products	626
2	Closing Devices	TS 93 Surface Applied Closer	Dorma	689
2	Auto door Bottoms	420APKL Smoke Seal	Pemko	MA
1	Saddle	½" x 4" # 170	Pemko	Alum

Balance of hardware by others

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and members to which the work of this section attaches or adjoins prior to frame installation.

B. Provide openings plumb, square and within allowable tolerances.
1. Provide 3/8 inch shim space at all walls

C. Notify Architect of any conditions which jeopardize the integrity of the proposed fire wall / door system.

D. Do not proceed until such conditions are corrected.

3.2 INSTALLATION

A. Install per Fireframes Designer Series Installation Manual

3.3 REPAIR AND TOUCH UP

A. Remove and replace glass that is broken, chipped, cracked, abraded, or damaged.

3.4 ADJUSTING

A. Adjust door function and hardware for smooth operation. Coordinate with other hardware suppliers for function and use of any other attached hardware.

3.5 PROTECTION AND CLEANING

A. Protect glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.
   1. Do not clean with astringent cleaners. Use a clean “grit free” cloth and a small amount of mild soap and water or mild detergent.
   2. Do not use any of the following:
      a. Steam jets
      b. Abrasives
      c. Strong acidic or alkaline detergents, or surface-reactive agents
      d. Detergents not recommended in writing by the manufacturer
      e. Do not use any detergent above 77 degrees F
      f. Organic solvents including but not limited to those containing ester, ketones, alcohols, aromatic compounds, glycol ether, or halogenated hydrocarbons.
      g. Metal or hard parts of cleaning equipment must not touch the glass surface

B. Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If, despite such protection, contaminating substances do come into contact with glass, remove them immediately as recommended by glass manufacturer.

C. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer.

END OF SECTION

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 084413 - GLAZED ALUMINUM CURTAIN WALLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes glazed aluminum curtain walls for Handicapped Entrance at Town Hall and North Entrance door at Library..

B. Related Section: See Section 084113 for door in curtain wall.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, elevations, sections, full-size details, and attachments to other work.

1. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

2. Curtain Wall and Store Front (Section 084111) shall be the same manufacturer.

C. Samples: For each exposed finish required.

D. Delegated-Design Submittal: For glazed aluminum curtain walls indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Energy Performance Certificates: NFRC-certified energy performance values from manufacturer.

B. Product test reports.

C. Field quality-control reports.

D. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Provide test reports from AAMA accredited laboratories certifying the performance as specified in C. below. Test reports shall be accompanied by the curtain wall manufacturer's letter of certification stating that the tested curtain wall meets or exceeds the referenced criteria for the appropriate curtain wall type.

C. All laboratory testing and performance requirements shall meet the standards of the design basis system.

D. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.

1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

1.7 WARRANTY

A. Special Assembly Warranty: Manufacturer and installer agree to repair or replace components of glazed aluminum curtain wall that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

B. Organic Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion, based on AAMA standard 2604..

C. Glass

1. Provide written warranty for insulated glass units, that they will be free from obstruction of vision as a result of dust or film formation on the internal glass surfaces caused by failure of the hermetic seal due to defects in material and workmanship.
2. Warranty period shall be for 10 (ten) years.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazed aluminum curtain walls.

B. General Performance: Comply with performance requirements specified, as determined by testing of glazed aluminum curtain walls representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Glazed aluminum curtain walls shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
2. Failure also includes the following:

a. Thermal stresses transferring to building structure.
b. Glass breakage.
c. Noise or vibration created by wind and thermal and structural movements.
d. Loosening or weakening of fasteners, attachments, and other components.
e. Failure of operating units.

C. Structural Loads:

1. Wind Loads: As required by ICC-2-12, Chapter 16 for Seymour, Connecticut
2. Other Design Loads: As determined by curtain wall manufacturer design eneginner in conformance with IBC, 2012.

D. Deflection of Framing Members: At design wind pressure, as follows:

1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane not exceeding 1/175 of the glass edge length for each individual glazing lite.
2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8 inch.

a. Operable Units: Provide a minimum 1/16-inch clearance between framing members and operable units.

b. 11 feet 8-1/4 inches.

E. Structural: Test according to ASTM E 330 as follows:

1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

F. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:

1. Fixed Framing and Glass Area:

a. Maximum air leakage of 0.06 cfm/sq. ft. at a static-air-pressure differential of 6.24 lbf/sq. ft..

G. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:

1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft..

H. Energy Performance: Certify and label energy performance according to NFRC as follows:

1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.47 Btu/sq. ft. x h x deg F, center of glass light, as determined according to NFRC 100-2010.
2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of no greater than 0.26 as determined according to NFRC 200.
3. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 55 as determined according to NFRC 500.

I. Windborne-Debris Impact Resistance: Pass missile-impact and cyclic-pressure tests when tested according to ASTM E 1886 and testing information in ASTM E 1996. See Appendix K of Connecticut Building Code for requirements (100 mph winds, 3 sec gusts).

J. Large-Missile Test: For glazed openings located within 30 feet of grade.

K. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 MANUFACTURERS

A. Basis of Design: EFCO Corporation Series 5600 Outside Glazed Aluminum Curtain Wall System. Products of other manufacturers meeting specification criteria of the Series 5600 system may be provided upon submission of documentation of equality and approved in writing by the Architect.

2.3 FRAMING

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Construction: Thermally broken.
2. Glazing System: Retained mechanically with gaskets on four sides.
3. Glazing Plane: Front.

4. Finish: High-performance organic finish.
5. Fabrication Method: Either factory- or field-fabricated system.

B. Pressure Caps: Manufacturer's standard aluminum components that mechanically retain glazing.

1. Include snap-on aluminum trim that conceals fasteners.

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

D. Materials:

1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.

a. Sheet and Plate: ASTM B 209.
b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
d. Structural Profiles: ASTM B 308/B 308M.

2. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.

a. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
b. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
c. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

2.4 GLAZING

A. Glazing: 1” insulating glass with low-E pyrolytic coating on second surface and argon filled interstitial space, except doors may be ¾”

B. Safety Glazing: All glass within doors and all glass in sidelights identified with an “S” on the drawings shall conform to impact requirements of CPSC 16 CFR Part 1201 and identified by the manufacturer’s markings on each pane:

C. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.

D. Glazing Sealants: As recommended by manufacturer.

2.5 FABRICATION

A. Form or extrude aluminum shapes before finishing.

B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

C. Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fitted joints with ends coped or mitered.
3. Physical and thermal isolation of glazing from framing members.
4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
5. Provisions for field replacement of glazing from exterior.
6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

D. Fabricate components to resist water penetration as follows:

1. Internal guttering system or other means to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior.
2. Pressure-equalized system or double barrier design with primary air and vapor barrier at interior side of glazed aluminum curtain wall and secondary seal weeped and vented to exterior.

E. Factory-Assembled Frame Units:

1. Rigidly secure nonmovement joints.
2. Prepare surfaces that are in contact structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion.
3. Preparation includes, but is not limited to, cleaning and priming surfaces.
4. Seal joints watertight unless otherwise indicated.
5. Install glazing to comply with requirements in Section 088000 "Glazing."

F. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.6 ALUMINUM FINISHES

A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat.

1. Color and Gloss: White gloss.

B. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

PART 3-EXECUTION

3.1 FIELD VERIFICATION

A. Prior to beginning shop drawings field-verify all opening sizes and conditions for conformance with Architect's documents.

3.2 INSTALLATION

A. General:

1. Comply with manufacturer's written instructions.
2. Do not install damaged components.
3. Fit joints to produce hairline joints free of burrs and distortion.
4. Rigidly secure nonmovement joints.
5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
6. Where welding is required, weld components in concealed locations to minimize distortion or discoloration of finish. Protect glazing surfaces from welding.
7. Seal joints watertight unless otherwise indicated.

B. Metal Protection:

8. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with primer, applying sealant or tape, or installing nonconductive spacers as recommended by manufacturer for this purpose.
9. Where aluminum is in contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior.

D. Install components plumb and true in alignment with established lines and grades.

E. Install glazing as specified in Section 088000 "Glazing."

3.3 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspection

B. Test Area: Perform tests on representative areas of glazed aluminum curtain walls.

C. Field Quality-Control Testing: Perform the following test on representative areas of glazed aluminum curtain walls.

1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.

a. Perform a minimum of two tests in areas as directed by Architect.

D. Glazed aluminum curtain walls will be considered defective if they do not pass tests and inspections.

E. Prepare test and inspection reports.

END OF SECTION 084413

SECTION 085113 - ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. Aluminum framed single-hung, fixed and projected windows

B. Louvers

C. Aluminum-framed entrances and storefronts are specified in Section 084113

D. Screens are Alternate #1

1.2 PREINSTALLATION

A. Preinstallation Conference: Conduct conference at Project site.

B. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface, and are in accordance with approved shop drawings.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.

C. Samples: For each exposed product and for each color specified.

1.4 INFORMATIONAL SUBMITTALS

A. Product test reports.

B. Sample warranties.

1.5 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 10 years

a. Window: 10 years from date of Substantial Completion.

b. Glazing Units: 10 years from date of Substantial Completion.

c. Finish: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 WINDOW PERFORMANCE REQUIREMENTS

A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440-08 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

1. Window Certification: AAMA certified.

B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:
1. Minimum Performance Class: AW.

2. Minimum Performance Grade: 50.

C. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.48 Btu/sq. ft. x h x deg F.

D. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.27.

E. Condensation-Resistance Factor (CRF): Provide aluminum windows tested for thermal performance according to AAMA 1503, showing a CRF of 56.

F. Thermal Movements: Provide aluminum windows, including anchorage, that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F ambient; 180 deg F material surfaces.

2.2 ALUMINUM WINDOWS

A. Basis of Design

1. Windows are based on EFCO Corporation, Monett, Missouri window products.

2. Products of other manufacturers meeting visual and technical requirements area acceptable upon submission and approval of the following information:

a. Test reports and catalogue information confirming compliance with test and design criteria.

b. 24”x 36” sample windows.

B. Operating Types:

1. Single Hung Windows: Equal to EFCO Series 660 AW-PG50-H Grade Single Hung Window.

2. Projected Windows: Equal to EFCO Series 450X Thermal AW-PG120-AP Grade Projected Window.

3. Fixed Windows: Equal to EFCO Series 450G Thermal AW-PG120-AP Grade Fixed Window

C. Frames and Sashes: Aluminum extrusions complying with AAMA/WDMA/CSA 101/I.S.2/A440.

1. Thermally Improved Construction: Fabricate frames, sashes, and muntins with an integral, concealed, low-conductance thermal barrier located between exterior materials and window members exposed on interior side in a manner that eliminates direct metal-to-metal contact.

D. Insulating-Glass Units: ASTM E 2190.

1. Glass: ASTM C 1036, Type 1, Class 1, q3.

a. Tint: Clear on east elevation, Bronze on south and west elevations.

b. Obscure glass at Lavatories.

2. Lites: Two.

3. Filling: Fill space between glass lites with argon.

4. Low-E Coating: Pyrolytic on second surface.

E. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal.

F. Hardware, General: Provide manufacturer's standard corrosion-resistant hardware sized to accommodate sash weight and dimensions.

1. Exposed Hardware Color and Finish: US25D brushed finish

G. Projected Window Hardware:

1. Operating hardware: 4-bar stainless steel arms.

2. Hinges: Non-friction type, not less than two per sash.

3. Lock: Cam type, manufactured from a white bronze alloy with US25D brushed finish.

4. Limit Devices: Limit clear opening to 4 inches for ventilation; with custodial key release.

H. Hung Window Hardware:

1. Counterbalancing Mechanism: High performance sash balances tested in accordance with AAMA 902 “Voluntary Specification for Sash Balances.”

a. Balances shall be of appropriate size and capacity to hold sash in position in accordance with AAMA 101, Section 2.2.1.3.2 and AAMA 902 Section 8.1.

b. Balances shall meet all minimum AAMA 902 Class 5 requirement with a minimum .30Manually Applied Force ration (MAF).

c. Balances shall be attached to a locking carrier system that slides on extruded rails inthe jamb channels.

2. Locks and Latches: Operated from the inside only.

3. Sash locks shall be located on bottom rail.

I. Weather Stripping: Provide full-perimeter weather stripping for each operable sash unless otherwise indicated.

a. All primary weather-strip shall be FIN-SEAL or equal.

J. Fasteners: Noncorrosive and compatible with window members, trim, hardware, anchors, and other components.

1. Exposed Fasteners: Do not use exposed fasteners. For application of hardware, use fasteners that match finish hardware being fastened.

2.3 FIXED EXTRUDED-ALUMINUM LOUVERS

A. Horizontal Nondrainable-Blade Louver
1. Louver Depth: 2 inches
2. Blade Profile: Blade with center baffle.
3. Frame and Blade Nominal Thickness: Not less than 0.080 inch.
4. Louver Performance Ratings:

a. Free Area: Not less than 7.5 sq. ft. for 48-inch-wide by 48-inch-high louver.
b. Point of Beginning Water Penetration: Not less than 700 fpm <**Insert value**>.
c. Air Performance: Not more than 0.10-inch wg static pressure drop at 650-fpm free-area intake velocity.

B. Louver Screening for Aluminum Louvers:

1. Bird Screening: Aluminum, 1/2-inch-square mesh, 0.063-inch wire.

2.4 ACCESSORIES

A. Dividers (False Muntins): Provide extruded-aluminum divider grilles in designs indicated for each sash lite.

1. Type: Permanently located between insulating-glass lites.

2. Pattern: As indicated on Drawings.

B. Subsills: Nonthermal, extruded-aluminum subsills in configurations indicated on Drawings.

C. Interior Trim: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.

D. Panning Trim: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.

E. Receptor System: Two-piece, snap-together, thermally broken, extruded-aluminum receptor system that anchors windows in place.

2.5 FABRICATION

A. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.

B. Glaze aluminum windows in the factory.

C. Weather strip each operable sash to provide weathertight installation.

D. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.

E. Mullions: Provide mullions and cover plates, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections. Provide mullions and cover plates capable of withstanding design wind loads of window units.

F. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation.

2.6 INSECT SCREENS (Alternate #1)

A. General: Fabricate insect screens to integrate with window frame. Provide screen for each operable exterior sash. Screen wickets are not permitted.

1. Type and Location: Half, outside for single-hung sashes.

B. Aluminum Frames: Complying with SMA 1004 or SMA 1201.

C. Glass-Fiber Mesh Fabric: 18-by-14 mesh of PVC-coated, glass-fiber threads; woven and fused to form a fabric mesh resistant to corrosion, shrinkage, stretch, impact damage, and weather deterioration. Comply with ASTM D 3656/D 3656M.

1. Mesh Color: Manufacturer's standard.

2.7 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. High-Performance Organic Finish (Two-Coat Fluoropolymer): AA-C12C40R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: conversion coating; Organic Coating: manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with AAMA 2605 and with coating and resin manufacturers' written instructions.

1. Color and Gloss: White .

PART 3 - EXECUTION

3.1 FIELD VERIFICATION

A. Prior to beginning shop drawings field-verify all opening sizes and conditions for conformance with Architect’s documents.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E 2112.

B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.

C. Adequately anchor to maintain positions permanently when subjected to normal thermal movement, normal building movement and specified wind loads.

D. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.

E. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

F. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.

G. Clean exposed surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

H. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION 085113

SECTION 087111 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Mechanical door hardware for the following:
   a. Interior swinging doors at Library stair exit (base bid)
   b. Sump closet door at Police Station

B. Hardware for exterior aluminum doors supplied by aluminum door supplier.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product in each finish specified.

C. Door hardware schedule.

D. Keying schedule.

1.3 INFORMATIONAL SUBMITTALS

A. Sample warranty.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and of an Architectural Hardware Consultant who is available during the course of the Work to consult Contractor, Architect, and Owner about door hardware and keying.

1. Scheduling Responsibility: Preparation of door hardware and keying schedule.

B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as an Architectural Hardware Consultant (AHC) and an Electrified Hardware Consultant (EHC).

1.6 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Three years from date of Substantial Completion unless otherwise indicated below:
   a. Exit Devices: Two years from date of Substantial Completion.
   b. Manual Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Door Assemblies: Where fire-rated doors are indicated, provide door hardware complying with NFPA 80 that is listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

B. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.

C. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the DOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.2 SCHEDULED DOOR HARDWARE

A. Provide products for each door that comply with requirements indicated in Part 2 and door hardware schedule.

1. Door hardware is scheduled in Part 3.

2.3 HINGES

A. Hinges: BHMA A156.1.

B. Antifriction-Bearing Hinges:

1. Mounting: Full mortise (butts).
2. Bearing Material: Ball bearing.
3. Grade: 1 (heavy weight).
4. Base and Pin Metal:
   a. Hinges for Fire-Rated Assemblies: Stainless steel with stainless-steel pin.
5. Pins:
   a. Outswinging Exit Doors: Nonremovable.
6. Tips: Flat button.

7. Corners: Square.

2.4 EXIT DEVICES AND AUXILIARY ITEMS

A. Exit Devices and Auxiliary Items: BHMA A156.3.

B. Fire Exit Devices: Devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252.

C. Rim Exit Devices: Grade 1

1. Type: 4, narrow stile.
2. Actuating Bar: Narrow-stile push pad.
3. Material: Stainless steel.

D. Exit Device Outside Trim: Lever; material and finish to match exit .

E. Match design for lock trim unless otherwise indicated.

F. Through-Bolt Fasteners: For exit devices and trim on fire-rated wood doors.

2.5 OPERATING TRIM

A. Operating Trim: BHMA A156.6; stainless steel unless otherwise indicated.

2.6 SURFACE CLOSERS

A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written instructions for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.

B. Surface Closer with Cover: Grade 1; Modern type with mechanism enclosed in cover.

1. Mounting: Hinge side.
2. Type: Regular arm.
3. Backcheck: Adjustable, effective between 60 and 85 degrees of door opening.
4. Cover Material: Aluminum.
5. Closing Power Adjustment: At least 35 percent more than minimum tested value.

2.7 THRESHOLDS

A. Thresholds: BHMA A156.21; fabricated to full width of opening indicated.

B. Saddle Thresholds:

1. Type: Fluted top, barrier free.
2. Base Metal: Aluminum.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
1. Wood Doors: DHI's "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.

C. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

D. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Section 079200 "Joint Sealants."

E. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

3.2 ADJUSTING

A. Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.3 DOOR HARDWARE SCHEDULE

A. Library Stair Exit Doors (base bid)
1. Basis of Design: Stanley Security Solutions except as noted
2. Hinges: CB179, 3 per door
3. Fire Exit Devices: Reliant FL5101 with 814A lever handle
4. Closers: D-3550 Series
5. Saddle: Pemko 1715

B. Police Station Sump Pump Closet
   1. Storeroom Function Lockset at Police Station: Match existing door hardware manufacturer and quality. Key into existing keying system.
   2. Hinges: Stanley CB179, 3 per door

C. Basement stair doors at Town Hall (2 doors)
   1. Fire exit Devices: Reliant FL5101 with 814A lever handle

END OF SECTION 087111

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 092216 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Non-load-bearing steel framing systems for interior partitions
2. Miscellaneous furring

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Sustainable Design Submittals:

1.3 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of code-compliance certification for studs and tracks

1.4 QUALITY ASSURANCE

A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association the Steel Framing Industry Association or the Steel Stud Manufacturers Association.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 119 by an independent testing agency.

2.2 FRAMING SYSTEMS

A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.

1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal unless otherwise indicated.
2. Protective Coating: ASTM A 653/A 653M, G40unless otherwise indicated.

B. Studs and Tracks: ASTM C 645.

1. Steel Studs and Tracks:
   a. Minimum Base-Metal Thickness: 0.0179 inch.
   b. Depth: As indicated on Drawings.

C. Slip-Type Head Joints: Where indicated, provide the following:
1. Deflection Track: Steel sheet top track manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.

D. Resilient Furring Channels: 1/2-inch-deep, steel sheet members designed to reduce sound transmission.
1. Configuration: Asymmetrical or hat shaped.

E. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches, wall attachment flange of 7/8 inch, minimum uncoated-metal thickness of 0.0179 inch, and depth required to fit insulation thickness indicated.

2.3 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.

1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

B. Isolation Strip at Exterior Walls: Provide[**one of**] the following:

1. Asphalt-Saturated Organic Felt: ASTM D 226/D 226M, Type I (No. 15 asphalt felt), nonperforated.
2. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8 inch thick, in width to suit steel stud size.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Installation Standard: ASTM C 754.
1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.

C. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

D. Install bracing at terminations in assemblies.

E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.2 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

D. Install tracks at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts that penetrate partitions above ceiling.

1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install track section (for cripple studs) at head and secure to jamb studs.
    a. Install two studs at each jamb unless otherwise indicated.
    b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
    c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
3. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.

E. Direct Furring:

1. Screw to wood framing.
2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.

F. Z-Shaped Furring Members:

1. Erect insulation, specified in Section 072100 "Thermal Insulation," vertically and hold in place with Z-shaped furring members spaced 24 inches o.c.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring

channel to web of attached channel. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.

G. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION 092216

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior gypsum board.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

A. Gypsum Board, Type X: ASTM C 1396/C 1396M.
   1. Thickness: 5/8 inch.
   2. Long Edges: Tapered.

2.4 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. MaterialGalvanized or aluminum-coated steel sheet or rolled zinc.
2. Shapes:

   a. Cornerbead.
   b. LC-Bead: J-shaped; exposed long flange receives joint compound.

2.5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Board: Paper.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
1. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type, all-purpose compound.

a. Use setting-type compound for installing paper-faced metal trim accessories.

2. Fill Coat: For second coat, use drying-type, all-purpose compound.
3. Finish Coat: For third coat, use setting-type, sandable topping compound.
4. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.

2.6 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.

C. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.

1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.

EXECUTION

2.7 APPLYING AND FINISHING PANELS

A. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

B. Comply with ASTM C 840.

C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

D. For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

E. Prefill open joints, rounded or beveled edges, and damaged surface areas.

F. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

G. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
2. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

END OF SECTION 092900

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Acoustical panels and exposed suspension system for interior ceiling in Library Stacks.

2. Miscellaneous ceiling removals and reinstallation required for new window installations and other work in Town Hall and Library.

3. Miscellaneous ceiling removals and reinstallation required for VAV box replacement on all floors at the Police Station and AHU replacement at First Floor ceiling of Town Hall. See mechanical drawings for extent.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Reflected ceiling plans, drawn to scale, and coordinated with each other, using input from installers of the items involved.

B. Product test reports.

C. Research reports.

D. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: Class A according to ASTM E 1264.
2. Smoke-Developed Index: 50 or less.

2.2 ACOUSTICAL PANELS

A. Basis of Design

1. Armstrong “Cirrus” High NRC, tegular, medium texture.

2. Products of other manufacturers with similar appearance and technical characteristics are acceptable.

B. Acoustical Panel Standard: Manufacturer's standard panels according to ASTM E 1264.

C. Color: White.

D. Light Reflectance (LR): 0.85

E. Ceiling Attenuation Class (CAC): 35

F. Noise Reduction Coefficient (NRC): 0.75

G. Articulation Class (AC): 170

H. Edge/Joint Detail: Reveal sized to fit flange of exposed suspension-system members.

I. Thickness: 7/8 inch.

J. Modular Size: 24 by 24 inches.

2.3 METAL SUSPENSION SYSTEM

A. Metal Suspension-System Standard: Manufacturer's standard, direct-hung, metal suspension system and accessories according to ASTM C 635/C 635M.

B. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet; hot-dip galvanized, G30 coating designation; with prefinished 15/16-inch-wide metal caps on flanges.

C. ` Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.

2.4 METAL EDGE MOLDINGS AND TRIM Copy this article and re-edit for each product.

A. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension-system runners.

PART 3 - EXECUTION

3.1 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated.

B. Layout openings for penetrations centered on the penetrating items.

C. In areas where ceilings are to be removed for other work, carefully remove and store existing boards and grid. After work is complete, reinstall existing grid and boards.

3.2 INSTALLATION

A. Install acoustical panel ceilings according to ASTM C 636/C 636M and manufacturer's written instructions.

B. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area andwhere necessary to conceal edges of acoustical panels.

C. Retain subparagraphs below to eliminate air movement and light and sound leaks at edges of ceiling.

D. Do not use exposed fasteners, including pop rivets, on moldings and trim.

E. After completion of above-ceiling work, carefully reinstall removed boards and grid. Damaged boards shall be replaced with boards matching existing in color and style.

END OF SECTION 095113

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Thermoset-rubber base.
2. Rubber stair accessories.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified.

PART 2 - PRODUCTS

2.1 THERMOSET-RUBBER BASE.

A. Product Standard: ASTM F 1861, Type TS (rubber, vulcanized thermoset), Group I (solid, homogeneous).

1. Style and Location:
   a. Style B, Cove: Thickness: 0.125 inch.

B. Height: 6 inches.

C. Lengths: Cut lengths 48 inches long or coils in manufacturer's standard length.

D. Outside Corners: Preformed.

E. Inside Corners: Preformed.

F. Colors: As selected by Architect from manufacturer’s full range.

2.2 RUBBER STAIR ACCESSORIES

A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

B. Stair Treads: ASTM F 2169.

1. Type: TS (rubber, vulcanized thermoset).
2. Class: 2 (pattern; embossed, grooved, or ribbed).
3. Group: 2 (with contrasting color for the visually impaired).
4. Nosing Style: Square, adjustable to cover angles between 60 and 90 degrees.
5. Nosing Height: Confirm in field.
6. Thickness: 1/4 inch and tapered to back edge.
7. Size: Lengths and depths to fit each stair tread in one piece.

C. Separate Risers: Smooth, flat; in height that fully covers substrate; produced by same manufacturer as treads and recommended by manufacturer for installation with treads.

1. Style: Coved toe, 7 inches high by length matching treads.
2. Thickness: Manufacturer's standard.

D. Landing Tile: Matching treads; produced by same manufacturer as treads and recommended by manufacturer for installation with treads.

E. Colors and Patterns: As selected by Architect from manufacturer’s full range.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

C. Stair-Tread Nose Filler: Two-part epoxy compound recommended by resilient stair-tread manufacturer to fill nosing substrates that do not conform to tread contours.

D. Floor Polish: Provide protective, liquid floor-polish products recommended by resilient stair-tread manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

B. Concrete Substrates for Resilient Stair Accessories: Prepare horizontal surfaces according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.

2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
4. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft., and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.

    a. Anhydrous Calcium Chloride Test: ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
    b. Relative Humidity Test: Using in-situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.

C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

D. Do not install resilient products until materials are the same temperature as space where they are to be installed.

E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

3.2 RESILIENT BASE INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient base.

B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.

C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.

D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.

E. Do not stretch resilient base during installation.

F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.

G. Preformed Corners: Install preformed corners before installing straight pieces.

3.3 RESILIENT ACCESSORY INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient accessories.

B. Resilient Stair Accessories:

1. Remove existing metal nosings.

2. Use stair-tread-nose filler to fill nosing substrates that do not conform to tread contours. Tightly adhere to substrates throughout length of each piece.

C. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor covering that would otherwise be exposed.

3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.

B. Floor Polish: Remove soil, adhesive, and blemishes from resilient stair treads before applying liquid floor polish.

1. Apply two coat(s).

C. Cover resilient products subject to wear and foot traffic until Substantial Completion.

END OF SECTION 096513

SECTION 096519 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Rubber floor.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and pattern specified.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for floor tile installation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient floor tile, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

   1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.2 RUBBER FLOOR TILE

A. Tile Standard: ASTM F 1344, Class I-A, Homogeneous Rubber Tile, solid color. See "Rubber Floor Tile" Article in the Evaluations for a discussion of hardness values.

A. Hardness: Grade 1, minimum hardness of 85, measured using Shore, Type A durometer according to ASTM D 2240.

B. Wearing Surface: Molded pattern.

1. Molded-Pattern Figure: Raised discs.

C. Thickness: 0.125 inch.

D. Size: 12 by 12 inches.

E. Colors and Patterns: As indicated by manufacturer's designations.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.

C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.

B. Remove materials indicated as hazardous materials in accordance with regulations and Division 2 Harzardous Materials.

C. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.

.

D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

E. Do not install floor tiles until materials are the same temperature as space where they are to be installed.

1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.

F. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.2 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.

B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

1. Lay tiles square with room axis.

C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles with grain running in one direction.

D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.

G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.

H. Adhere floor tiles to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

I. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.

1. Apply two coat(s).

END OF SECTION 096519

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 099123 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes surface preparation and the application of paint systems on the following interior and exterior substrates:
   1. Wood.
   2. Concrete Masonry Units (CMU)
   3. Plastic.
   4. Gypsum board.
   5. Plaster.
   6. Brick
   7. Exposed Spiral Ductwork & Hangers

B. Lead Paint: Portions of the Town Hall and the Library were constructed before 1979 and are known to have lead paint. Reports showing locations of products containing lead paint are available for review.
   1. Removals of products containing lead paint and preparations for painting shall conform to lead removal requirements as set forth in Section 011200 and state and federal requirements.
   2. Contractor shall comply with the OSHA Construction Industry Standard for Lead (29 CFR Part 1926.62) and Connecticut DEEP regulations for waste disposal.
   3. Compliance shall include submittals and notices, personnel protection and worker training requirements.

C. Painting Scope
   1. Specific items requiring painting are shown on the drawings.
   2. Where other walls or portions of walls are disturbed or damaged by construction operations those walls shall be painted after repair to match adjacent construction from corner or edge to corner or edge (entire wall in that plane).

1.2 DEFINITIONS

A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.

B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.

D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.

E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

1.4 QUALITY ASSURANCE

A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system.

a. Vertical and Horizontal Surfaces: Provide samples of at least 10 sq. ft..
b. Other Items: Architect will designate items or areas required.

2. Final approval of color selections will be based on mockups.

a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Interior Painting Schedule for the paint category indicated.

2.2 PAINT, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

C. Colors: In general, colors shall match colors of existing and/or adjacent surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

1. Wood: 15 percent.
2. Gypsum Board: 12 percent.
3. Plaster: 12 percent.

C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

D. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

C. MPI gloss numbers are relative. Gloss and sheen shall match that of existing or adjacent surfaces.

3.4 INTERIOR PAINTING SCHEDULE

A. CMU Substrates:

1. Institutional Low-Odor/VOC Latex System:
   a. Block Filler: Block filler, latex, interior/exterior, MPI #4
   b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
   c. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.

B. Steel Substrates:

1. Institutional Low-Odor/VOC Latex System MPI INT 5.1S:
   a. Prime Coat: Primer, rust inhibitive, water based MPI #107.
   b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
   c. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5), MPI #147.

C. Wood Substrates: Wood trim.

1. Institutional Low-Odor/VOC Latex System MPI INT 6.3V:
   a. Prime Coat: Primer, latex, for interior wood, MPI #39.
   b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
   c. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (MPI Gloss Level 5), MPI #147.

D. Gypsum Board and Plaster Substrates:

1. Institutional Low-Odor/VOC Latex System MPI INT 9.2M:
   a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
   b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
   c. Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.

E. Wood Doors

1. Wood Doors
   a. Prime Coat: Water-based varnish matching topcoat.
   b. Intermediate Coat: Water-based varnish matching topcoat.
   c. Top Coat: Water-based, clear, semi-gloss (Gloss Level 5), MP I#129

3.5 EXTERIOR PAINTING SCHEDULE

A. Wood Substrates: Wood trim, Wood Panels

1. Latex System MPI EXT 6.3A
   a. Prime Coat: Primer, alkyd for exterior wood, MPI #5
   b. Intermediate Coat: Latex, exterior, matching topcoat.
   c. Topcoat: Latex, exterior, matching existing sheen and gloss

B. Plastic Trim and Panels
1. Latex System MPI EXT 6.8A
   a. Prime Coat: Primer, bonding, water based, MPI #17
   b. Intermediate Coat: Latex, exterior, matching topcoat
   c. Topcoat: Latex, exterior, matching existing sheen and gloss

END OF SECTION 099123

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

SECTION 124813 - ENTRANCE FLOOR TILES AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Resilient entrance tiles.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance data.

PART 2 - PRODUCTS

2.1 ENTRANCE FLOOR MATS AND FRAMES, GENERAL

A. Accessibility Standard: Comply with applicable provisions in the DOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.2 RESILIENT ENTRANCE TILES

A. Carpet-Type Tiles: Polypropylene carpet bonded to 1/8- to 1/4-inch-thick, flexible vinyl backing to form mats 3/8 or 7/16 inch thick with nonraveling edges.

   1. Colors, Textures, and Patterns: As selected by Architect from full range of industry colors.
   2. Tile Size: Manufacturer’s standard.

2.3 FRAMES

A. Recessed Frames: Manufacturer's standard extrusion.

   1. Extruded Aluminum: ASTM B 221.

      a. Color: Mill finish.

2.4 FABRICATION

A. Floor Tiles: Space joints symmetrically and in largest sizes possible. Miter corner joints in framing elements with hairline joints or provide prefabricated corner units without joints.

B. Coat concealed surfaces of aluminum frames that contact cementitious material with manufacturer's standard protective coating.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install recessed mat frames and tiles to comply with manufacturer's written instructions so that tops of tiles will be flush with adjoining finished flooring. Set tiles with tops at height recommended by manufacturer for most effective cleaning action.

B. PROTECTION

After completing frame installation and concrete work, provide temporary filler of plywood or fiberboard in recesses and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and Project is near Substantial Completion.

END OF SECTION 124813

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK