CRA ARCHITECTS

CLEMONS,
RUTHERFORD
& ASSOCIATES, INC.

ARCHITECTS
▪
PLANNERS
▪
INTERIOR DESIGNERS
▪
CONSTRUCTION MANAGERS

2027 Thomasville Road
Tallahassee, FL 32308
p: 850-385-6153
f: 850-386-8420
www.craarchitects.com

PROJECT MANUAL

GADSDEN COUNTY BOARD OF COUNTY COMMISSIONERS

NEW EMS FACILITY

JOE ADAMS ROAD
QUINCY, FL.

CRA PROJECT NUMBER 23065

(100% CONSTRUCTION DOCUMENTS)

VOLUME 1

STATE OF FLORIDA
GREGORY WESTMORELAND KELLEY
16706
REGISTERED ARCHITECT

Digitally signed by Gregory W Kelley
DN: CN=Gregory W Kelley, dnQualifier=A01410C00000189B0F67CBF00104DE3, O=CLEMONS RUTHERFORD AND ASSOCIATES INC., C=US
Date: 2025.10.15 10:57:46-04'00'

PAGE LEFT BLANK INTENTIONALLY

© 2011 CLEMONS, RUTHERFORD & ASSOCIATES, INC.

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this project are instruments of CRA for use solely with respect to this project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.

TABLE OF CONTENTS

VOLUME 1

CONDITIONS OF THE CONTRACT

SECTION 000460 – TRENCH EXCAVATION SAFETY CERTIFICATION (W/ATACHED FORM)
SECTION 000500 - AGREEMENT FORMS (W/ ATTACHED FORM)
SECTION 000610 - PERFORMANCE BOND AND PAYMENT BOND (W/ ATTACHED FORMS)
SECTION 000625 - ACCEPTABLE SURETY COMPANIES
SECTION 000700 - GENERAL CONDITIONS (W/ ATTACHED FORM)
SECTION 000800 - SUPPLEMENTARY CONDITIONS (W/ ONE ATTACHED FORM)

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 011000 - SUMMARY OF WORK
SECTION 012300 - ALTERNATES
SECTION 012500 - SUBSTITUTIONS PROCEDURES
SECTION 012900 - PAYMENT PROCEDURES
SECTION 013100 - PROJECT COORDINATION
SECTION 013150 – CUTTING AND PATCHING
SECTION 013200 - PROJECT MEETINGS
SECTION 013300 - SUBMITTALS
SECTION 014000 - QUALITY CONTROL SERVICES (W/ATTACHED FORMS)
SECTION 014200 - DEFINITIONS AND STANDARDS
SECTION 015000 - TEMPORARY FACILITIES
SECTION 015500 - MATERIALS AND EQUIPMENT
SECTION 017700 - CLOSEOUT PROCEDURES
SECTION 017800 - WARRANTIES AND BONDS

DIVISION 2 – EXISTING CONDITIONS

SECTION 020205 - DEMOLITION
SECTION 023000 – GEOTECHNICAL DATA

DIVISION 3 – CONCRETE

SECTION 030320 – CONCRETE WORK - GENERAL

DIVISION 4 – MASONRY-NOT USED

DIVISION 5 – METALS

SECTION 055000 - METAL FABRICATIONS

TABLE OF CONTENTS (continued):

DIVISION 6 – WOOD, PLASTICS, AND COMPOSITES

SECTION 061000 - ROUGH CARPENTRY
SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK
SECTION 066510 - SOLID SURFACE FABRICATIONS

DIVISION 7 - MOISTURE PROTECTION

SECTION 071326 - SHEET MEMBRANE WATERPROOFING
SECTION 071900 - WATER REPELLENTS
SECTION 072100 - BUILDING INSULATION
SECTION 072600 – VAPOR RETARDERS
SECTION 076100 – SHEET METAL ROOFING
SECTION 076200 - FLASHING & SHEET METAL
SECTION 076310 - GUTTERS & DOWNSPOUTS
SECTION 079200 - JOINT SEALERS
SECTION 079500 - EXPANSION CONTROL

DIVISION 8 - OPENINGS

SECTION 081113 - STEEL DOORS AND FRAME
SECTION 081416 - WOOD DOORS
SECTION 084113 - ALUMINUM ENTRANCES AND STORE FRONTS
SECTION 087100 - FINISH HARDWARE
SECTION 088000 - GLASS AND GLAZING

DIVISION 9 - FINISHES

SECTION 092900 - GYPSUM DRYWALL
SECTION 093000 - TILE
SECTION 095100 - ACOUSTICAL CEILINGS
SECTION 096500 – RESILIENT TILE
SECTION 096513 – RESILIENT WALL BASE & STAIR TREADS
SECTION 099100 - PAINTING

DIVISION 10 - SPECIALTIES

SECTION 101440 – SIGNAGE w/ CONSTRUCTION SIGN ATTACHMENT
SECTION 101600 - TOILET PARTITIONS
SECTION 102800 - TOILET AND BATH ACCESSORIES
SECTION 104416 - FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES

DIVISION 13 - SPECIAL CONSTRUCTION

SECTION 133419 – METAL BUILDING SYSTEMS

END OF VOLUME 1 TABLE OF CONTENTS

SECTION 000460 - TRENCH EXCAVATION SAFETY CERTIFICATION

Trench Excavation Safety Certification Form, two (2) pages, is included herein and shall be completed and submitted by all Bidders with their proposals in accordance with the Instructions to Bidders.

END OF SECTION 000460

PAGE LEFT BLANK INTENTIONALLY

TRENCH EXCAVATION SAFETY CERTIFICATION

Pursuant to Florida Statutes 553.63, the Contractor or Subcontractor when performing trench excavation in excess of five feet (5') will comply with the following requirements:

(1) The Contract bid submitted by the contractor who will perform such excavation shall include:

a. A reference to the trench safety standards that will be in effect during the period of construction of the project.

b. Written assurance by the contractor performing the trench excavation that such contractor will comply with the applicable trench safety standards.

(2) A contractor perform trench excavation shall:

a. As a minimum, comply with the excavation safety standards which are applicable to a project.

b. Adhere to any special shoring requirements, if any, of the state or other political subdivisions which may be applicable to such a project.

c. If any geotechnical information is available form the owner, the contractor, or otherwise, the contractor performing trench excavation shall consider this information in the contractor's design of the project. This paragraph shall not require the owner to obtain geotechnical information.

(3) The separate item identifying the cost of compliance with trench safety standards shall be based on the linear feet of trench to be excavated. The separate item for special shoring requirements, if any, shall be based on the square feet of shoring used. Every separate item shall indicate the specific method of compliance as well as the cost of that method.

The contractor shall complete this form and submit it to the owner as a part of the bidding proposal package.

The undersigned, herein called "Bidder", has determined to his own complete satisfaction that all portions of the Florida Trench Safety Act (90-96, Laws of Florida) as the OSHA Excavation Safety Standards 29, CFR part 1926.650 Subpart P, will be fully complied with and executed property on this project.

Bidder acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The bidder further identifies the costs to be summarized below:

	Trench Safety Measure Measure (Description)	Units of (Quantity) (LF, SY)	Unit Cost	Unit Cost	Extended
A.	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	_____

Total $_____

In witness whereof, the Bidder has hereunto set his signature and affixed his seal this _____ day of _____, 20____.

Firm: _____

By: _____

Title: _____

(SEAL)

Sworn to and subscribed before me this _____ day of _____, 20____.

_____
Notary Public

SECTION 000500 - AGREEMENT FORMS

The "Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Cost of the Work Plus a Fee with a Guaranteed Maximum Price", The American Institute of Architect's (AIA) Document A133-2017, 2007 Edition, eighteen (18) pages, is included herein and shall be used, as modified, on this Project as the Agreement Form.

END OF SECTION 000500

Page Intentionally Left Blank

AIA® Document A133™ – 2009

Standard Form of Agreement Between Owner and Construction Manager as ***Constructor*** *where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price*

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

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

and the Construction Manager:
(Name, legal status and address)

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

The Architect:
(Name, legal status and address)

The Owner's Designated Representative:
(Name, address and other information)

The Construction Manager's Designated Representative:
(Name, address and other information)

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

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

AIA Document A201™–2007, 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.

Init.
/

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

The Architect's Designated Representative:
(Name, address and other information)

The Owner and Construction Manager agree as follows.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

TABLE OF ARTICLES

1 GENERAL PROVISIONS

2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

3 OWNER'S RESPONSIBILITIES

4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES

6 COST OF THE WORK FOR CONSTRUCTION PHASE

7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES

8 INSURANCE AND BONDS

9 DISPUTE RESOLUTION

10 TERMINATION OR SUSPENSION

11 MISCELLANEOUS PROVISIONS

12 SCOPE OF THE AGREEMENT

EXHIBIT A GUARANTEED MAXIMUM PRICE AMENDMENT

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 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 the 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. Upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal, the Contract Documents will also include the documents described in Section 2.2.3 and identified in the Guaranteed Maximum Price Amendment and revisions prepared by the Architect and furnished by the Owner as described in Section 2.2.8. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Agreement, this Agreement shall govern.

§ 1.2 Relationship of the Parties

The Construction Manager accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Construction Manager's skill and judgment in furthering the interests of the Owner; to furnish efficient construction administration, management services and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish or approve, in a timely manner, information required by the Construction Manager and to make payments to the Construction Manager in accordance with the requirements of the Contract Documents.

§ 1.3 General Conditions

For the Preconstruction Phase, AIA Document A201™–2007, General Conditions of the Contract for Construction, shall apply only as specifically provided in this Agreement. For the Construction Phase, the general conditions of the contract shall be as set forth in A201–2007, which document is incorporated herein by reference. The term "Contractor" as used in A201–2007 shall mean the Construction Manager.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

ARTICLE 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

The Construction Manager's Preconstruction Phase responsibilities are set forth in Sections 2.1 and 2.2. The Construction Manager's Construction Phase responsibilities are set forth in Section 2.3. The Owner and Construction Manager may agree, in consultation with the Architect, for the Construction Phase to commence prior to completion of the Preconstruction Phase, in which case, both phases will proceed concurrently. The Construction Manager shall identify a representative authorized to act on behalf of the Construction Manager with respect to the Project.

§ 2.1 Preconstruction Phase

§ 2.1.1 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other.

§ 2.1.2 Consultation

The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work. The Construction Manager shall advise the Owner and the Architect on proposed site use and improvements, selection of materials, and building systems and equipment. The Construction Manager shall also provide recommendations consistent with the Project requirements to the Owner and Architect on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 2.1.3 When Project requirements in Section 3.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities and identify items that could affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered well in advance of construction; and the occupancy requirements of the Owner.

§ 2.1.4 Phased Construction

The Construction Manager shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, or phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities and procurement and construction scheduling issues.

§ 2.1.5 Preliminary Cost Estimates

§ 2.1.5.1 Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume or similar conceptual estimating techniques for the Architect's review and Owner's approval. If the Architect or Construction Manager suggests alternative materials and systems, the Construction Manager shall provide cost evaluations of those alternative materials and systems.

§ 2.1.5.2 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, estimates of the Cost of the Work of increasing detail and refinement and allowing for the further development of the design until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. Such estimates shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect when estimates of the Cost of the Work exceed the latest approved Project budget and make recommendations for corrective action.

§ 2.1.6 Subcontractors and Suppliers

The Construction Manager shall develop bidders' interest in the Project.

§ 2.1.7 The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered well in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered well in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

items on terms and conditions acceptable to the Construction Manager. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

§ 2.1.8 Extent of Responsibility

The Construction Manager shall exercise reasonable care in preparing schedules and estimates. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by or made known to the Construction Manager as a request for information in such form as the Architect may require.

§ 2.1.9 Notices and Compliance with Laws

The Construction Manager shall comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi governmental authorities for inclusion in the Contract Documents.

§ 2.2 Guaranteed Maximum Price Proposal and Contract Time

§ 2.2.1 At a time to be mutually agreed upon by the Owner and the Construction Manager and in consultation with the Architect, the Construction Manager shall prepare a Guaranteed Maximum Price proposal for the Owner's review and acceptance. The Guaranteed Maximum Price in the proposal shall be the sum of the Construction Manager's estimate of the Cost of the Work, including contingencies described in Section 2.2.4, and the Construction Manager's Fee.

§ 2.2.2 To the extent that the Drawings and Specifications are anticipated to require further development by the Architect, the Construction Manager shall provide in the Guaranteed Maximum Price for such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include such things as changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

§ 2.2.3 The Construction Manager shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include the following:

.1 A list of the Drawings and Specifications, including all Addenda thereto, and the Conditions of the Contract;

.2 A list of the clarifications and assumptions made by the Construction Manager in the preparation of the Guaranteed Maximum Price proposal, including assumptions under Section 2.2.2, to supplement the information provided by the Owner and contained in the Drawings and Specifications;

.3 A statement of the proposed Guaranteed Maximum Price, including a statement of the estimated Cost of the Work organized by trade categories or systems, allowances, contingency, and the Construction Manager's Fee;

.4 The anticipated date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based; and

.5 A date by which the Owner must accept the Guaranteed Maximum Price.

§ 2.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include its contingency for the Construction Manager's exclusive use to cover those costs considered reimbursable as the Cost of the Work but not included in a Change Order.

§ 2.2.5 The Construction Manager shall meet with the Owner and Architect to review the Guaranteed Maximum Price proposal. In the event that the Owner and Architect discover any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Construction Manager, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis, or both.

§ 2.2.6 If the Owner notifies the Construction Manager that the Owner has accepted the Guaranteed Maximum Price proposal in writing before the date specified in the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price proposal shall be deemed effective without further acceptance from the Construction Manager. Following

Init.
/
AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. All rights reserved.
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

acceptance of a Guaranteed Maximum Price, the Owner and Construction Manager shall execute the Guaranteed Maximum Price Amendment amending this Agreement, a copy of which the Owner shall provide to the Architect. The Guaranteed Maximum Price Amendment shall set forth the agreed upon Guaranteed Maximum Price with the information and assumptions upon which it is based.

§ 2.2.7 The Construction Manager shall not incur any cost to be reimbursed as part of the Cost of the Work prior to the commencement of the Construction Phase, unless the Owner provides prior written authorization for such costs.

§ 2.2.8 The Owner shall authorize the Architect to provide the revisions to the Drawings and Specifications to incorporate the agreed upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. The Owner shall promptly furnish those revised Drawings and Specifications to the Construction Manager as they are revised. The Construction Manager shall notify the Owner and Architect of any inconsistencies between the Guaranteed Maximum Price Amendment and the revised Drawings and Specifications.

§ 2.2.9 The Construction Manager shall include in the Guaranteed Maximum Price all sales, consumer, use and similar taxes for the Work provided by the Construction Manager that are legally enacted, whether or not yet effective, at the time the Guaranteed Maximum Price Amendment is executed.

§ 2.3 Construction Phase

§ 2.3.1 General

§ 2.3.1.1 For purposes of Section 8.1.2 of A201–2007, the date of commencement of the Work shall mean the date of commencement of the Construction Phase.

§ 2.3.1.2 The Construction Phase shall commence upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal or the Owner's issuance of a Notice to Proceed, whichever occurs earlier.

§ 2.3.2 Administration

§ 2.3.2.1 Those portions of the Work that the Construction Manager does not customarily perform with the Construction Manager's own personnel shall be performed under subcontracts or by other appropriate agreements with the Construction Manager. The Owner may designate specific persons from whom, or entities from which, the Construction Manager shall obtain bids. The Construction Manager shall obtain bids from Subcontractors and from suppliers of materials or equipment fabricated especially for the Work and shall deliver such bids to the Architect. The Owner shall then determine, with the advice of the Construction Manager and the Architect, which bids will be accepted. The Construction Manager shall not be required to contract with anyone to whom the Construction Manager has reasonable objection.

§ 2.3.2.2 If the Guaranteed Maximum Price has been established and when a specific bidder (1) is recommended to the Owner by the Construction Manager, (2) is qualified to perform that portion of the Work, and (3) has submitted a bid that conforms to the requirements of the Contract Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Construction Manager may require that a Change Order be issued to adjust the Contract Time and the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Construction Manager and the amount and time requirement of the subcontract or other agreement actually signed with the person or entity designated by the Owner.

§ 2.3.2.3 Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the prior consent of the Owner. If the Subcontract is awarded on a cost plus fee basis, the Construction Manager shall provide in the Subcontract for the Owner to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Construction Manager in Section 6.11 below.

§ 2.3.2.4 If the Construction Manager recommends a specific bidder that may be considered a "related party" according to Section 6.10, then the Construction Manager shall promptly notify the Owner in writing of such relationship and notify the Owner of the specific nature of the contemplated transaction, according to Section 6.10.2.

§ 2.3.2.5 The Construction Manager shall schedule and conduct meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work. The Construction Manager shall prepare and promptly distribute minutes to the Owner and Architect.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 2.3.2.6 Upon the execution of the Guaranteed Maximum Price Amendment, the Construction Manager shall prepare and submit to the Owner and Architect a construction schedule for the Work and submittal schedule in accordance with Section 3.10 of A201–2007.

§ 2.3.2.7 The Construction Manager shall record the progress of the Project. On a monthly basis, or otherwise as agreed to by the Owner, the Construction Manager shall submit written progress reports to the Owner and Architect, showing percentages of completion and other information required by the Owner. The Construction Manager shall also keep, and make available to the Owner and Architect, a daily log containing a record for each day of weather, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the work, accidents, injuries, and other information required by the Owner.

§ 2.3.2.8 The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variances to the Owner and Architect and shall provide this information in its monthly reports to the Owner and Architect, in accordance with Section 2.3.2.7 above.

§ 2.4 Professional Services

Section 3.12.10 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

§ 2.5 Hazardous Materials

Section 10.3 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

ARTICLE 3 OWNER'S RESPONSIBILITIES

§ 3.1 Information and Services Required of the Owner

§ 3.1.1 The Owner shall provide information with reasonable promptness, regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, constraints, and criteria, including schedule, space requirements and relationships, flexibility and expandability, special equipment, systems, sustainability and site requirements.

§ 3.1.2 Prior to the execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Construction Manager may only request such evidence if (1) the Owner fails to make payments to the Construction Manager as the Contract Documents require, (2) a change in the Work materially changes the Contract Sum, or (3) the Construction Manager identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Construction Manager and Architect.

§ 3.1.3 The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1.1, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.

§ 3.1.4 Structural and Environmental Tests, Surveys and Reports. During the Preconstruction Phase, the Owner shall furnish the following information or services with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services. The Construction Manager shall be entitled to rely on the accuracy of information and services furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 3.1.4.1 The Owner shall furnish tests, inspections and reports required by law and as otherwise agreed to by the parties, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. All rights reserved.
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 3.1.4.2 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 surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

§ 3.1.4.3 The Owner, when such services are requested, shall furnish services of geotechnical engineers, which may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

§ 3.1.4.4 During the Construction Phase, 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 Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services.

§ 3.2 Owner's Designated Representative

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Construction Manager. Except as otherwise provided in Section 4.2.1 of A201–2007, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 3.2.1 Legal Requirements. The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

§ 3.3 Architect

The Owner shall retain an Architect to provide services, duties and responsibilities as described in AIA Document B133™–2014, Standard Form of Agreement Between Owner and Architect, Construction Manager as Constructor Edition. The Owner shall provide the Construction Manager a copy of the executed agreement between the Owner and the Architect, and any further modifications to the agreement.

ARTICLE 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

§ 4.1 Compensation

§ 4.1.1 For the Construction Manager's Preconstruction Phase services, the Owner shall compensate the Construction Manager as follows:

§ 4.1.2 For the Construction Manager's Preconstruction Phase services described in Sections 2.1 and 2.2:
(Insert amount of, or basis for, compensation and include a list of reimbursable cost items, as applicable.)

§ 4.1.3 If the Preconstruction Phase services covered by this Agreement have not been completed within ( ) months of the date of this Agreement, through no fault of the Construction Manager, the Construction Manager's compensation for Preconstruction Phase services shall be equitably adjusted.

§ 4.1.4 Compensation based on Direct Personnel Expense includes the direct salaries of the Construction Manager's personnel providing Preconstruction Phase services on the Project and the Construction Manager's costs for the mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, employee retirement plans and similar contributions.

§ 4.2 Payments

§ 4.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 4.2.2 Payments are due and payable upon presentation of the Construction Manager's invoice. Amounts unpaid ( ) days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Construction Manager.
(Insert rate of monthly or annual interest agreed upon.)

%

ARTICLE 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES

§ 5.1 For the Construction Manager's performance of the Work as described in Section 2.3, the Owner shall pay the Construction Manager the Contract Sum in current funds. The Contract Sum is the Cost of the Work as defined in Section 6.1.1 plus the Construction Manager's Fee.

§ 5.1.1 The Construction Manager's Fee:
(State a lump sum, percentage of Cost of the Work or other provision for determining the Construction Manager's Fee.)

§ 5.1.2 The method of adjustment of the Construction Manager's Fee for changes in the Work:

§ 5.1.3 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

§ 5.1.4 Rental rates for Construction Manager-owned equipment shall not exceed percent (%) of the standard rate paid at the place of the Project.

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

Item	Units and Limitations	Price per Unit ($0.00)

§ 5.2 Guaranteed Maximum Price

§ 5.2.1 The Construction Manager guarantees that the Contract Sum shall not exceed the Guaranteed Maximum Price set forth in the Guaranteed Maximum Price Amendment, as it is amended from time to time. To the extent the Cost of the Work exceeds the Guaranteed Maximum Price, the Construction Manager shall bear such costs in excess of the Guaranteed Maximum Price without reimbursement or additional compensation from the Owner.
(Insert specific provisions if the Construction Manager is to participate in any savings.)

§ 5.2.2 The Guaranteed Maximum Price is subject to additions and deductions by Change Order as provided in the Contract Documents and the Date of Substantial Completion shall be subject to adjustment as provided in the Contract Documents.

§ 5.3 Changes in the Work

§ 5.3.1 The Owner may, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Owner shall issue such changes in writing. The Architect may make minor changes in the Work as provided in Section 7.4 of AIA Document A201–2007, General Conditions of the Contract for Construction. The Construction Manager shall be entitled to an equitable adjustment in the Contract Time as a result of changes in the Work.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 5.3.2 Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of the Guaranteed Maximum Price Amendment may be determined by any of the methods listed in Section 7.3.3 of AIA Document A201–2007, General Conditions of the Contract for Construction.

§ 5.3.3 In calculating adjustments to subcontracts (except those awarded with the Owner's prior consent on the basis of cost plus a fee), the terms "cost" and "fee" as used in Section 7.3.3.3 of AIA Document A201–2007 and the term "costs" as used in Section 7.3.7 of AIA Document A201–2007 shall have the meanings assigned to them in AIA Document A201–2007 and shall not be modified by Sections 5.1 and 5.2, Sections 6.1 through 6.7, and Section 6.8 of this Agreement. Adjustments to subcontracts awarded with the Owner's prior consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

§ 5.3.4 In calculating adjustments to the Guaranteed Maximum Price, the terms "cost" and "costs" as used in the above-referenced provisions of AIA Document A201–2007 shall mean the Cost of the Work as defined in Sections 6.1 to 6.7 of this Agreement and the term "fee" shall mean the Construction Manager's Fee as defined in Section 5.1 of this Agreement.

§ 5.3.5 If no specific provision is made in Section 5.1.2 for adjustment of the Construction Manager's Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Section 5.1.2 will cause substantial inequity to the Owner or Construction Manager, the Construction Manager's Fee shall be equitably adjusted on the same basis that was used to establish the Fee for the original Work, and the Guaranteed Maximum Price shall be adjusted accordingly.

ARTICLE 6 COST OF THE WORK FOR CONSTRUCTION PHASE

§ 6.1 Costs to Be Reimbursed

§ 6.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Construction Manager in the proper performance of the Work. Such costs shall be at rates not higher than the standard paid at the place of the Project except with prior consent of the Owner. The Cost of the Work shall include only the items set forth in Sections 6.1 through 6.7.

§ 6.1.2 Where any cost is subject to the Owner's prior approval, the Construction Manager shall obtain this approval prior to incurring the cost. The parties shall endeavor to identify any such costs prior to executing Guaranteed Maximum Price Amendment.

§ 6.2 Labor Costs

§ 6.2.1 Wages of construction workers directly employed by the Construction Manager to perform the construction of the Work at the site or, with the Owner's prior approval, at off-site workshops.

§ 6.2.2 Wages or salaries of the Construction Manager's supervisory and administrative personnel when stationed at the site with the Owner's prior approval.
(If it is intended that the wages or salaries of certain personnel stationed at the Construction Manager's principal or other offices shall be included in the Cost of the Work, identify in Section 11.5, the personnel to be included, whether for all or only part of their time, and the rates at which their time will be charged to the Work.)

§ 6.2.3 Wages and salaries of the Construction Manager's supervisory or administrative personnel engaged at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

§ 6.2.4 Costs paid or incurred by the Construction Manager for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 6.2.1 through 6.2.3.

§ 6.2.5 Bonuses, profit sharing, incentive compensation and any other discretionary payments paid to anyone hired by the Construction Manager or paid to any Subcontractor or vendor, with the Owner's prior approval.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 6.3 Subcontract Costs
Payments made by the Construction Manager to Subcontractors in accordance with the requirements of the subcontracts.

§ 6.4 Costs of Materials and Equipment Incorporated in the Completed Construction
§ 6.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

§ 6.4.2 Costs of materials described in the preceding Section 6.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Construction Manager. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

§ 6.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items
§ 6.5.1 Costs of transportation, storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment and tools that are not fully consumed shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Construction Manager shall mean fair market value.

§ 6.5.2 Rental charges for temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and costs of transportation, installation, minor repairs, dismantling and removal. The total rental cost of any Construction Manager-owned item may not exceed the purchase price of any comparable item. Rates of Construction Manager-owned equipment and quantities of equipment shall be subject to the Owner's prior approval.

§ 6.5.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

§ 6.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

§ 6.5.5 That portion of the reasonable expenses of the Construction Manager's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

§ 6.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner's prior approval.

§ 6.6 Miscellaneous Costs
§ 6.6.1 Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract. Self-insurance for either full or partial amounts of the coverages required by the Contract Documents, with the Owner's prior approval.

§ 6.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work and for which the Construction Manager is liable.

§ 6.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which the Construction Manager is required by the Contract Documents to pay.

§ 6.6.4 Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work for which reimbursement is excluded by Section 13.5.3 of AIA Document A201–2007 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 6.7.3.

§ 6.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suits or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against the Construction Manager resulting from such suits or claims and payments of settlements made with the Owner's consent. However, such costs

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

of legal defenses, judgments and settlements shall not be included in the calculation of the Construction Manager's Fee or subject to the Guaranteed Maximum Price. If such royalties, fees and costs are excluded by the last sentence of Section 3.17 of AIA Document A201–2007 or other provisions of the Contract Documents, then they shall not be included in the Cost of the Work.

§ 6.6.6 Costs for electronic equipment and software, directly related to the Work with the Owner's prior approval.

§ 6.6.7 Deposits lost for causes other than the Construction Manager's negligence or failure to fulfill a specific responsibility in the Contract Documents.

§ 6.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Construction Manager, reasonably incurred by the Construction Manager after the execution of this Agreement in the performance of the Work and with the Owner's prior approval, which shall not be unreasonably withheld.

§ 6.6.9 Subject to the Owner's prior approval, expenses incurred in accordance with the Construction Manager's standard written personnel policy for relocation and temporary living allowances of the Construction Manager's personnel required for the Work.

§ 6.7 Other Costs and Emergencies

§ 6.7.1 Other costs incurred in the performance of the Work if, and to the extent, approved in advance in writing by the Owner.

§ 6.7.2 Costs incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in Section 10.4 of AIA Document A201–2007.

§ 6.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Construction Manager, Subcontractors or suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of the Construction Manager and only to the extent that the cost of repair or correction is not recovered by the Construction Manager from insurance, sureties, Subcontractors, suppliers, or others.

§ 6.7.4 The costs described in Sections 6.1 through 6.7 shall be included in the Cost of the Work, notwithstanding any provision of AIA Document A201–2007 or other Conditions of the Contract which may require the Construction Manager to pay such costs, unless such costs are excluded by the provisions of Section 6.8.

§ 6.8 Costs Not To Be Reimbursed

§ 6.8.1 The Cost of the Work shall not include the items listed below:

.1 Salaries and other compensation of the Construction Manager's personnel stationed at the Construction Manager's principal office or offices other than the site office, except as specifically provided in Section 6.2, or as may be provided in Article 11;

.2 Expenses of the Construction Manager's principal office and offices other than the site office;

.3 Overhead and general expenses, except as may be expressly included in Sections 6.1 to 6.7;

.4 The Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Work;

.5 Except as provided in Section 6.7.3 of this Agreement, costs due to the negligence or failure of the Construction Manager, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable to fulfill a specific responsibility of the Contract;

.6 Any cost not specifically and expressly described in Sections 6.1 to 6.7;

.7 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded; and

.8 Costs for services incurred during the Preconstruction Phase.

§ 6.9 Discounts, Rebates and Refunds

§ 6.9.1 Cash discounts obtained on payments made by the Construction Manager shall accrue to the Owner if (1) before making the payment, the Construction Manager included them in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Construction Manager with which to make payments; otherwise, cash discounts shall accrue to the Construction Manager. Trade discounts, rebates, refunds and

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. All rights reserved.
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Construction Manager shall make provisions so that they can be obtained.

§ 6.9.2 Amounts that accrue to the Owner in accordance with the provisions of Section 6.9.1 shall be credited to the Owner as a deduction from the Cost of the Work.

§ 6.10 Related Party Transactions

§ 6.10.1 For purposes of Section 6.10, the term "related party" shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with the Construction Manager; any entity in which any stockholder in, or management employee of, the Construction Manager owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of the Construction Manager. The term "related party" includes any member of the immediate family of any person identified above.

§ 6.10.2 If any of the costs to be reimbursed arise from a transaction between the Construction Manager and a related party, the Construction Manager shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction, then the cost incurred shall be included as a cost to be reimbursed, and the Construction Manager shall procure the Work, equipment, goods or service from the related party, as a Subcontractor, according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3. If the Owner fails to authorize the transaction, the Construction Manager shall procure the Work, equipment, goods or service from some person or entity other than a related party according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3.

§ 6.11 Accounting Records

The Construction Manager shall keep full and detailed records and accounts related to the cost of the Work and exercise such controls as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Construction Manager's records and accounts, including complete documentation supporting accounting entries, books, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, purchase orders, vouchers, memoranda and other data relating to this Contract. The Construction Manager shall preserve these records for a period of three years after final payment, or for such longer period as may be required by law.

ARTICLE 7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES

§ 7.1 Progress Payments

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

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

§ 7.1.3 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 certified amount to the Construction Manager 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 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.)

§ 7.1.4 With each Application for Payment, the Construction Manager shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that cash disbursements already made by the Construction Manager on account of the Cost of the Work equal or exceed progress payments already received by the Construction Manager, less that portion of those payments attributable to the Construction Manager's Fee, plus payrolls for the period covered by the present Application for Payment.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 7.1.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Construction Manager in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among the various portions of the Work, except that the Construction Manager's Fee shall be shown as a single separate item. 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, unless objected to by the Architect, shall be used as a basis for reviewing the Construction Manager's Applications for Payment.

§ 7.1.6 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. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed, or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Construction Manager on account of that portion of the Work for which the Construction Manager has made or intends to make actual payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ 7.1.7 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

.1 Take that portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values. Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201–2007;

.2 Add that portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work, or if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing;

.3 Add the Construction Manager's Fee, less retainage of percent (%). The Construction Manager's Fee shall be computed upon the Cost of the Work at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, shall be an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work bears to a reasonable estimate of the probable Cost of the Work upon its completion;

.4 Subtract retainage of percent (%) from that portion of the Work that the Construction Manager self-performs;

.5 Subtract the aggregate of previous payments made by the Owner;

.6 Subtract the shortfall, if any, indicated by the Construction Manager in the documentation required by Section 7.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and

.7 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201–2007.

§ 7.1.8 The Owner and Construction Manager shall agree upon (1) a mutually acceptable procedure for review and approval of payments to Subcontractors and (2) the percentage of retainage held on Subcontracts, and the Construction Manager shall execute subcontracts in accordance with those agreements.

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

§ 7.1.10 In taking action on the Construction Manager's Applications for Payment, the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Construction Manager and shall not be deemed to represent that the Architect has made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Section 7.1.4 or other supporting data; that the Architect has made exhaustive or continuous on-site inspections; or that the Architect has made examinations to ascertain how or for what purposes the Construction Manager has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 7.2 Final Payment

§ 7.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Construction Manager when

.1 the Construction Manager has fully performed the Contract except for the Construction Manager's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201–2007, and to satisfy other requirements, if any, which extend beyond final payment;

.2 the Construction Manager has submitted a final accounting for the Cost of the Work and a final Application for Payment; and

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

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

§ 7.2.2 The Owner's auditors will review and report in writing on the Construction Manager's final accounting within 30 days after delivery of the final accounting to the Architect by the Construction Manager. Based upon such Cost of the Work as the Owner's auditors report to be substantiated by the Construction Manager's final accounting, and provided the other conditions of Section 7.2.1 have been met, the Architect will, within seven days after receipt of the written report of the Owner's auditors, either issue to the Owner a final Certificate for Payment with a copy to the Construction Manager, or notify the Construction Manager and Owner in writing of the Architect's reasons for withholding a certificate as provided in Section 9.5.1 of the AIA Document A201–2007. The time periods stated in this Section supersede those stated in Section 9.4.1 of the AIA Document A201–2007. The Architect is not responsible for verifying the accuracy of the Construction Manager's final accounting.

§ 7.2.3 If the Owner's auditors report the Cost of the Work as substantiated by the Construction Manager's final accounting to be less than claimed by the Construction Manager, the Construction Manager shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Section 15.2 of A201–2007. A request for mediation shall be made by the Construction Manager within 30 days after the Construction Manager's receipt of a copy of the Architect's final Certificate for Payment. Failure to request mediation within this 30-day period shall result in the substantiated amount reported by the Owner's auditors becoming binding on the Construction Manager. Pending a final resolution of the disputed amount, the Owner shall pay the Construction Manager the amount certified in the Architect's final Certificate for Payment.

§ 7.2.4 If, subsequent to final payment and at the Owner's request, the Construction Manager incurs costs described in Section 6.1.1 and not excluded by Section 6.8 to correct defective or nonconforming Work, the Owner shall reimburse the Construction Manager such costs and the Construction Manager's Fee applicable thereto on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If the Construction Manager has participated in savings as provided in Section 5.2.1, the amount of such savings shall be recalculated and appropriate credit given to the Owner in determining the net amount to be paid by the Owner to the Construction Manager.

ARTICLE 8 INSURANCE AND BONDS

For all phases of the Project, the Construction Manager and the Owner shall purchase and maintain insurance, and the Construction Manager shall provide bonds as set forth in Article 11 of AIA Document A201–2007.
(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201–2007.)

Type of Insurance or Bond	Limit of Liability or Bond Amount ($0.00)

ARTICLE 9 DISPUTE RESOLUTION

§ 9.1 Any Claim between the Owner and Construction Manager shall be resolved in accordance with the provisions set forth in this Article 9 and Article 15 of A201–2007. However, for Claims arising from or relating to the Construction Manager's Preconstruction Phase services, no decision by the Initial Decision Maker shall be required as a condition precedent to mediation or binding dispute resolution, and Section 9.3 of this Agreement shall not apply.

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. All rights reserved.
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

§ 9.2 For any Claim subject to, but not resolved by mediation pursuant to Section 15.3 of AIA Document A201–2007, the method of binding dispute resolution shall be as follows:
(Check the appropriate box. If the Owner and Construction Manager do not select a method of binding dispute resolution below, 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.)

[ ] Arbitration pursuant to Section 15.4 of AIA Document A201–2007

[ ] Litigation in a court of competent jurisdiction

[ ] Other: *(Specify)*

§ 9.3 Initial Decision Maker
The Architect will serve as the Initial Decision Maker pursuant to Section 15.2 of AIA Document A201–2007 for Claims arising from or relating to the Construction Manager's Construction Phase services, unless the parties appoint below another individual, not a party to the 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.)

ARTICLE 10 TERMINATION OR SUSPENSION

§ 10.1 Termination Prior to Establishment of the Guaranteed Maximum Price

§ 10.1.1 Prior to the execution of the Guaranteed Maximum Price Amendment, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager for the Owner's convenience and without cause, and the Construction Manager may terminate this Agreement, upon not less than seven days' written notice to the Owner, for the reasons set forth in Section 14.1.1 of A201–2007.

§ 10.1.2 In the event of termination of this Agreement pursuant to Section 10.1.1, the Construction Manager shall be equitably compensated for Preconstruction Phase services performed prior to receipt of a notice of termination. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 4.1.

§ 10.1.3 If the Owner terminates the Contract pursuant to Section 10.1.1 after the commencement of the Construction Phase but prior to the execution of the Guaranteed Maximum Price Amendment, the Owner shall pay to the Construction Manager an amount calculated as follows, which amount shall be in addition to any compensation paid to the Construction Manager under Section 10.1.2:

.1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;

.2 Add the Construction Manager's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion; and

.3 Subtract the aggregate of previous payments made by the Owner for Construction Phase services.

The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager which the Owner elects to retain and which is not otherwise included in the Cost of the Work under Section 10.1.3.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 10, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. All rights reserved.
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

Manager under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Construction Manager will contain provisions allowing for assignment to the Owner as described above.

If the Owner accepts assignment of subcontracts, purchase orders or rental agreements as described above, the Owner will reimburse or indemnify the Construction Manager for all costs arising under the subcontract, purchase order or rental agreement, if those costs would have been reimbursable as Cost of the Work if the contract had not been terminated. If the Owner chooses not to accept assignment of any subcontract, purchase order or rental agreement that would have constituted a Cost of the Work had this agreement not been terminated, the Construction Manager will terminate the subcontract, purchase order or rental agreement and the Owner will pay the Construction Manager the costs necessarily incurred by the Construction Manager because of such termination.

§ 10.2 Termination Subsequent to Establishing Guaranteed Maximum Price
Following execution of the Guaranteed Maximum Price Amendment and subject to the provisions of Section 10.2.1 and 10.2.2 below, the Contract may be terminated as provided in Article 14 of AIA Document A201–2007.

§ 10.2.1 If the Owner terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager pursuant to Sections 14.2 and 14.4 of A201–2007 shall not exceed the amount the Construction Manager would otherwise have received pursuant to Sections 10.1.2 and 10.1.3 of this Agreement.

§ 10.2.2 If the Construction Manager terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager under Section 14.1.3 of A201–2007 shall not exceed the amount the Construction Manager would otherwise have received under Sections 10.1.2 and 10.1.3 above, except that the Construction Manager's Fee shall be calculated as if the Work had been fully completed by the Construction Manager, utilizing as necessary a reasonable estimate of the Cost of the Work for Work not actually completed.

§ 10.3 Suspension
The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2007. In such case, the Guaranteed Maximum Price and Contract Time shall be increased as provided in Section 14.3.2 of AIA Document A201–2007, except that the term "profit" shall be understood to mean the Construction Manager's Fee as described in Sections 5.1 and 5.3.5 of this Agreement.

ARTICLE 11 MISCELLANEOUS PROVISIONS
§ 11.1 Terms in this Agreement shall have the same meaning as those in A201–2007.

§ 11.2 Ownership and Use of Documents
Section 1.5 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

§ 11.3 Governing Law
Section 13.1 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

§ 11.4 Assignment
The Owner and Construction Manager, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Construction Manager shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement. Except as provided in Section 13.2.2 of A201–2007, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 11.5 Other provisions:

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

ARTICLE 12 SCOPE OF THE AGREEMENT

§ 12.1 This Agreement represents the entire and integrated agreement between the Owner and the Construction Manager and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Construction Manager.

§ 12.2 The following documents comprise the Agreement:

.1 AIA Document A133–2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price

.2 AIA Document A201–2007, General Conditions of the Contract for Construction

.3 AIA Document E201™–2007, Digital Data Protocol Exhibit, if completed, or the following:

.4 AIA Document E202™–2008, Building Information Modeling Protocol Exhibit, if completed, or the following:

.5 Other documents:
(List other documents, if any, forming part of the Agreement.)

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

OWNER *(Signature)*	**CONSTRUCTION MANAGER** *(Signature)*
(Printed name and title)	*(Printed name and title)*

AIA Document A133™ – 2009 (formerly A121™CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**
WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
This document was produced by AIA software at 10:25:32 ET on 04/15/2019 under Order No.8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (912742506)

SECTION 000610 - PERFORMANCE BOND AND PAYMENT BOND

The "Performance Bond" and "Payment Bond", The American Institute of Architects' (AIA) Document A312, 2010 Edition, four (4) pages each, is included herein and shall be used on this Project as the Performance Bond and Payment Bond.

END OF SECTION 000610

Page Intentionally Left Blank

AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:
(Name, legal status and address)

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

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:
Amount: $
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:)

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

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

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

AIA Document A312™ – 2010 Payment Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

§ 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.

AIA Document A312™ – 2010 Payment Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

§ 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.

AIA Document A312™ – 2010 Payment Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

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

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

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

§ 18 Modifications to this bond are as follows:

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

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

AIA Document A312™ – 2010 Payment Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

Additions and Deletions Report for

AIA® Document A312™ – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 14:19:40 ET on 09/28/2022.

There are no differences.

Additions and Deletions Report for AIA Document A312™ – 2010 Payment Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 14:19:40 ET on 09/28/2022 under Order No. 2114256091 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Payment Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

_____

(Signed)

_____

(Title)

_____

(Dated)

AIA Document D401™ – 2003. Copyright © 1992 and 2003 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:19:40 ET on 09/28/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1513572716)

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

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

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

AIA Document A312™ – 2010 Performance Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

§ 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. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

§ 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. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

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

§ 16 Modifications to this bond are as follows:

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

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

AIA Document A312™ – 2010 Performance Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

Additions and Deletions Report for

AIA® Document A312™ – 2010

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 11:43:31 ET on 10/13/2020.

There are no differences.

Additions and Deletions Report for AIA Document A312™ – 2010 Performance Bond. The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 11:43:31 ET on 10/13/2020 under Order No. 3994842707 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Performance Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

_____

(Signed)

_____

(Title)

_____

(Dated)

AIA Document D401™ – 2003. Copyright © 1992 and 2003 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:43:31 ET on 10/13/2020 under Order No.3994842707 which expires on 11/13/2020, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (842430805)

SECTION 000625 - ACCEPTABLE SURETY COMPANIES

PART 1 - GENERAL

1.01 To be acceptable as Surety on Performance and Payment Bonds, a surety company shall comply with the following provisions:

A. The Surety Company must be admitted to do business in the State of Florida.

B. The Surety Company shall have been in business and have a record of successful continuous operations for at least five years.

C. The Surety Company shall have at least the minimum ratings based on Best Ratings and Financial Performance Ratings from A.M. Best Company as follows:

BEST'S RATINGS	
A++, A+	Superior
A, A-	Excellent
B++, B+	Very Good
BEST'S FINANCIAL PERFORMANCE RATINGS	
9	Very Strong
8, 7	Strong
6, 5	Good

CONTRACT AMOUNT	**FINANCIAL SIZE CATEGORIES**
Less than 1,000,000	FSC I
1,000,000 to 2,000,000	FSC II
2,000,000 to 5,000,000	FSC III
5,000,000 to 10,000,000	FSC IV
10,000,000 to 25,000,000	FSC V
25,000,000 to 50,000,000	FSC VI
50,000,000 to 100,000,000	FSC VII

1. Best's Rating represents an opinion based on a comprehensive quantitative and qualitative evaluation of a company's balance sheet strength, operating performance and business profile or an equivalent rating from the Insurance Commissioner, if not rated by Best's.

2. Best Financial Performance Rating represents an opinion based primarily on a quantitative evaluation of a company=s balance sheet strength and operating performance for companies that do not meet the minimum size and/or operating experience requirements for a Best's Rating.

1.02 The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten (10) percent of its surplus to policyholders, provided:

A. Any risk or portion of any risk shall have been reinsured (in which case these minimum requirements contained herein also apply to the reinsuring carrier) in assuming insurer authorized or approved by the Insurance Commissioner to do such business in this State shall be deducted in determining the limitation of risk prescribed in this section.

B. In the case of a surety insurance company, there shall be deducted in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the content of the Surety and for the protection of the Surety.

PART 2 - PRODUCTS N/A

PART 3 - EXECUTION N/A

END OF SECTION 000625

SECTION 000700 - GENERAL CONDITIONS

The "General Conditions of the Contract for Construction", The American Institute of Architects' (AIA) Document A201-2017, forty-one (41) pages, is included herein.

END OF SECTION 000700

Page Intentionally Left Blank

AIA® Document A201® – 2017

General Conditions of the Contract for Construction

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

THE OWNER:
(Name, legal status and address)

THE ARCHITECT:
(Name, legal status and address)

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2, 10.4, 14.3, 15.1.6, **15.2.5**
Failure of Payment
9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2
Faulty Work
(See Defective or Nonconforming Work)
Final Completion and Final Payment
4.2.1, 4.2.9, 9.8.2, **9.10**, 12.3, 14.2.4, 14.4.3
Financial Arrangements, Owner's
2.2.1, 13.2.2, 14.1.1.4
GENERAL PROVISIONS
1
Governing Law
13.1
Guarantees (See Warranty)
Hazardous Materials and Substances
10.2.4, **10.3**
Identification of Subcontractors and Suppliers
5.2.1
Indemnification
3.17, **3.18**, 9.6.8, 9.10.2, 10.3.3, 11.3
Information and Services Required of the Owner
2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10.1, 6.1.3, 6.1.4, 6.2.5, 9.6.1, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2, 14.1.1.4, 14.1.4, 15.1.4
Initial Decision
15.2
Initial Decision Maker, Definition of
1.1.8
Initial Decision Maker, Decisions
14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5
Initial Decision Maker, Extent of Authority
14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5
Injury or Damage to Person or Property
10.2.8, 10.4
Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 12.2.1, 13.4
Instructions to Bidders
1.1.1
Instructions to the Contractor
3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.4.2
Instruments of Service, Definition of
1.1.7
Insurance
6.1.1, 7.3.4, 8.2.2, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 10.2.5, **11**
Insurance, Notice of Cancellation or Expiration
11.1.4, 11.2.3
Insurance, Contractor's Liability
11.1
Insurance, Effective Date of
8.2.2, 14.4.2
Insurance, Owner's Liability
11.2
Insurance, Property
10.2.5, 11.2, 11.4, 11.5
Insurance, Stored Materials
9.3.2
INSURANCE AND BONDS
11
Insurance Companies, Consent to Partial Occupancy
9.9.1
Insured loss, Adjustment and Settlement of
11.5
Intent of the Contract Documents
1.2.1, 4.2.7, 4.2.12, 4.2.13
Interest
13.5
Interpretation
1.1.8, 1.2.3, **1.4**, 4.1.1, 5.1, 6.1.2, 15.1.1
Interpretations, Written
4.2.11, 4.2.12
Judgment on Final Award
15.4.2
Labor and Materials, Equipment
1.1.3, 1.1.6, **3.4**, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2
Labor Disputes
8.3.1
Laws and Regulations
1.5, 2.3.2, 3.2.3, 3.2.4, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 9.9.1, 10.2.2, 13.1, 13.3.1, 13.4.2, 13.5, 14, 15.2.8, 15.4
Liens
2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8
Limitations, Statutes of
12.2.5, 15.1.2, 15.4.1.1
Limitations of Liability
3.2.2, 3.5, 3.12.10, 3.12.10.1, 3.17, 3.18.1, 4.2.6, 4.2.7, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 9.6.8, 10.2.5, 10.3.3, 11.3, 12.2.5, 13.3.1
Limitations of Time
2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7, 5.2, 5.3, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15, 15.1.2, 15.1.3, 15.1.5
Materials, Hazardous
10.2.4, **10.3**
Materials, Labor, Equipment and
1.1.3, 1.1.6, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1.2, 10.2.4, 14.2.1.1, 14.2.1.2
Means, Methods, Techniques, Sequences and Procedures of Construction
3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2
Mechanic's Lien
2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8
Mediation
8.3.1, 15.1.3.2, 15.2.1, 15.2.5, 15.2.6, **15.3**, 15.4.1, 15.4.1.1
Minor Changes in the Work
1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1, **7.4**

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

MISCELLANEOUS PROVISIONS
13
Modifications, Definition of
1.1.1
Modifications to the Contract
1.1.1, 1.1.2, 2.5, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7, 10.3.2
Mutual Responsibility
6.2
Nonconforming Work, Acceptance of
9.6.6, 9.9.3, **12.3**
Nonconforming Work, Rejection and Correction of
2.4, 2.5, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3, 9.10.4, 12.2
Notice
1.6, 1.6.1, 1.6.2, 2.1.2, 2.2.2., 2.2.3, 2.2.4, 2.5, 3.2.4, 3.3.1, 3.7.4, 3.7.5, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 7.4, 8.2.2 9.6.8, 9.7, 9.10.1, 10.2.8, 10.3.2, 11.5, 12.2.2.1, 13.4.1, 13.4.2, 14.1, 14.2.2, 14.4.2, 15.1.3, 15.1.5, 15.1.6, 15.4.1
Notice of Cancellation or Expiration of Insurance
11.1.4, 11.2.3
Notice of Claims
1.6.2, 2.1.2, 3.7.4, 9.6.8, 10.2.8, **15.1.3**, 15.1.5, 15.1.6, 15.2.8, 15.3.2, 15.4.1
Notice of Testing and Inspections
13.4.1, 13.4.2
Observations, Contractor's
3.2, 3.7.4
Occupancy
2.3.1, 9.6.6, 9.8
Orders, Written
1.1.1, 2.4, 3.9.2, 7, 8.2.2, 11.5, 12.1, 12.2.2.1, 13.4.2, 14.3.1
OWNER
2
Owner, Definition of
2.1.1
Owner, Evidence of Financial Arrangements
2.2, 13.2.2, 14.1.1.4
Owner, Information and Services Required of the
2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2, 9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2, 14.1.1.4, 14.1.4, 15.1.4
Owner's Authority
1.5, 2.1.1, 2.3.32.4, 2.5, 3.4.2, 3.8.1, 3.12.10, 3.14.2, 4.1.2, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3, 7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.2, 9.5.1, 9.6.4, 9.9.1, 9.10.2, 10.3.2, 11.4, 11.5, 12.2.2, 12.3, 13.2.2, 14.3, 14.4, 15.2.7
Owner's Insurance
11.2
Owner's Relationship with Subcontractors
1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2
Owner's Right to Carry Out the Work
2.5, 14.2.2
Owner's Right to Clean Up
6.3
Owner's Right to Perform Construction and to Award Separate Contracts
6.1
Owner's Right to Stop the Work
2.4
Owner's Right to Suspend the Work
14.3
Owner's Right to Terminate the Contract
14.2, 14.4
Ownership and Use of Drawings, Specifications and Other Instruments of Service
1.1.1, 1.1.6, 1.1.7, **1.5**, 2.3.6, 3.2.2, 3.11, 3.17, 4.2.12, 5.3
Partial Occupancy or Use
9.6.6, **9.9**
Patching, Cutting and
3.14, 6.2.5
Patents
3.17
Payment, Applications for
4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1, 14.2.3, 14.2.4, 14.4.3
Payment, Certificates for
4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4
Payment, Failure of
9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2
Payment, Final
4.2.1, 4.2.9, **9.10**, 12.3, 14.2.4, 14.4.3
Payment Bond, Performance Bond and
7.3.4.4, 9.6.7, 9.10.3, **11.1.2**
Payments, Progress
9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4
PAYMENTS AND COMPLETION
9
Payments to Subcontractors
5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2
PCB
10.3.1
Performance Bond and Payment Bond
7.3.4.4, 9.6.7, 9.10.3, **11.1.2**
Permits, Fees, Notices and Compliance with Laws
2.3.1, **3.7**, 3.13, 7.3.4.4, 10.2.2
PERSONS AND PROPERTY, PROTECTION OF
10
Polychlorinated Biphenyl
10.3.1
Product Data, Definition of
3.12.2
Product Data and Samples, Shop Drawings
3.11, **3.12**, 4.2.7
Progress and Completion
4.2.2, **8.2**, 9.8, 9.9.1, 14.1.4, 15.1.4
Progress Payments
9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

Subsurface Conditions
3.7.4
Successors and Assigns
13.2
Superintendent
3.9, 10.2.6
Supervision and Construction Procedures
1.2.2, **3.3**, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3, 7.3.4, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.4
Suppliers
1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.5.4, 9.6, 9.10.5, 14.2.1
Surety
5.4.1.2, 9.6.8, 9.8.5, 9.10.2, 9.10.3, 11.1.2, 14.2.2, 15.2.7
Surety, Consent of
9.8.5, 9.10.2, 9.10.3
Surveys
1.1.7, 2.3.4
Suspension by the Owner for Convenience
14.3
Suspension of the Work
3.7.5, 5.4.2, 14.3
Suspension or Termination of the Contract
5.4.1.1, 14
Taxes
3.6, 3.8.2.1, 7.3.4.4
Termination by the Contractor
14.1, 15.1.7
Termination by the Owner for Cause
5.4.1.1, **14.2,** 15.1.7
Termination by the Owner for Convenience
14.4
Termination of the Architect
2.3.3
Termination of the Contractor Employment
14.2.2

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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.

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

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

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

§ 2.2 Evidence of the Owner's Financial Arrangements

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

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

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

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

§ 2.3 Information and Services Required of the Owner

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

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

§ 2.4 Owner's Right to Stop the Work

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

§ 2.5 Owner's Right to Carry Out the Work

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

ARTICLE 3 CONTRACTOR

§ 3.1 General

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

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

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

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

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

§ 3.3 Supervision and Construction Procedures

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

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

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

§ 3.4 Labor and Materials

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

§ 3.5 Warranty

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

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

§ 3.6 Taxes

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

§ 3.7 Permits, Fees, Notices and Compliance with Laws

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

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

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

§ 3.7.4 Concealed or Unknown Conditions

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 3.8 Allowances

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

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

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

§ 3.9 Superintendent

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

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

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

§ 3.10 Contractor's Construction and Submittal Schedules

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

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

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

§ 3.11 Documents and Samples at the Site

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

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

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

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

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

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

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

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

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

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

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

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

§ 3.13 Use of Site

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

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

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

§ 3.15 Cleaning Up

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

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

§ 3.16 Access to Work

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

§ 3.17 Royalties, Patents and Copyrights

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

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

ARTICLE 4 ARCHITECT

§ 4.1 General

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

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

§ 4.2 Administration of the Contract

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

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

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

§ 4.2.4 Communications

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

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

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

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

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

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

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

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

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

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

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

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

§ 5.3 Subcontractual Relations

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

§ 5.4 Contingent Assignment of Subcontracts

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

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

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

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

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

§ 6.2 Mutual Responsibility

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

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

§ 6.3 Owner's Right to Clean Up

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

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

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

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

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

§ 7.2 Change Orders

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

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

§ 7.3 Construction Change Directives

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

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

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

.1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;

.2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;

.3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;

.4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and

.5 Costs of supervision and field office personnel directly attributable to the change.

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

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

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

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

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

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

§ 7.4 Minor Changes in the Work

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

ARTICLE 8 TIME

§ 8.1 Definitions

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

§ 8.2 Progress and Completion

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

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

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

§ 8.3 Delays and Extensions of Time

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

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

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

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

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

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

§ 9.2 Schedule of Values

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

§ 9.3 Applications for Payment

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

§ 9.4 Certificates for Payment

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

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

§ 9.5 Decisions to Withhold Certification

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

- **.1** defective Work not remedied;
- **.2** third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- **.3** failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
.5 damage to the Owner or a Separate Contractor;
.6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
.7 repeated failure to carry out the Work in accordance with the Contract Documents.

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

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

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

§ 9.6 Progress Payments

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

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

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

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

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

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 9.7 Failure of Payment

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

§ 9.8 Substantial Completion

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

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

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

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

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

§ 9.9 Partial Occupancy or Use

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

§ 9.10 Final Completion and Final Payment

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

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

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

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

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

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

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

§ 10.2 Safety of Persons and Property

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

.1 employees on the Work and other persons who may be affected thereby;

.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and

.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

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

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

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

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

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

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

§ 10.2.8 Injury or Damage to Person or Property

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

§ 10.3 Hazardous Materials and Substances

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

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

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

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

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

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

§ 10.4 Emergencies

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

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

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

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

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

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

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

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

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

§ 11.3 Waivers of Subrogation

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

§11.5 Adjustment and Settlement of Insured Loss

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

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

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

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

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

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

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

§ 12.2.2 After Substantial Completion

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

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

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

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

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

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

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

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

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

§ 13.2 Successors and Assigns

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

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

§ 13.3 Rights and Remedies

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 13.4 Tests and Inspections

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

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

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

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

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

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

§ 13.5 Interest

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

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

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

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

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

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

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

§ 14.3 Suspension by the Owner for Convenience

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

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

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

§ 14.4 Termination by the Owner for Convenience

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

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

§ 15.1.2 Time Limits on Claims

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

§ 15.1.3 Notice of Claims

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

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

§ 15.1.4 Continuing Contract Performance

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

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

§ 15.1.5 Claims for Additional Cost

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

§ 15.1.6 Claims for Additional Time

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

§ 15.1.7 Waiver of Claims for Consequential Damages

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

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

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

§ 15.2 Initial Decision

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

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

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

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

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

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

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

§ 15.3 Mediation

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

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

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

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

§ 15.4 Arbitration

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

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

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

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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

§ 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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

Additions and Deletions Report for

AIA® Document A201® – 2017

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 14:10:17 ET on 03/02/2021.

There are no differences.

Additions and Deletions Report for 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. The "American Institute of Architects," "AIA," the AIA Logo, "A201," and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 14:10:17 ET on 03/02/2021 under Order No. 8154658269 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A201™ – 2017, General Conditions of the Contract for Construction, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

_____

(Signed)

_____

(Title)

_____

(Dated)

AIA Document D401™ – 2003. Copyright © 1992 and 2003 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:10:17 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (1984784687)

PAGE LEFT BLANK INTENTIONALLY

SECTION 000800 - SUPPLEMENTARY CONDITIONS

The following supplements modify the "General Conditions of 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.

ARTICLE 1 – GENERAL PROVISIONS

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following Subparagraph 1.2.4 to 1.2:

1.2.4 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

A. The Agreement.

B. Addenda, with those of later date having precedence over those of earlier date.

C. The Supplementary Conditions.

D. The General Conditions of the Contract for Construction.

E. Drawings and Specifications.

In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality and greater quantity of Work shall be provided in accordance with the Architect's interpretation.

ARTICLE 2 - OWNER

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Subparagraph 2.2.5 and substitute the following:

2.2.5 The Contractor will be furnished free of charge five (5) copies of Drawings and Project Manuals. Additional sets will be furnished at the cost of reproduction, postage and handling.

ARTICLE 3 - CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

Add the following to the end of Subparagraph 3.2.2

Prior to commencing any excavation or grading, the Contractor shall satisfy himself as to the accuracy of all survey data as indicated in these Drawings and Specifications and/or as provided by Owner. Should the contractor discover any inaccuracies, errors, or omissions in the survey data, the Contractor shall immediately notify the Architect in order that proper adjustments can be anticipated and ordered. Commencement by the Contractor of any excavation or grading shall be held as an acceptance of the survey data by the Contractor, after which time the Contractor has no claim against the Owner resulting from alleged errors, omissions or inaccuracies of the said survey data.

Add the following Subparagraph 3.2.4 to 3.2:

3.2.4 Before beginning work at the site, the Contractor shall attend a preconstruction conference scheduled by the Architect and he shall bring the superintendent employed for this project. At this time, all parties concerned will discuss the project under Contract and prepare a program of procedures in keeping with requirements of the Contract Documents.
The superintendent shall henceforth make every effort to expeditiously coordinate all phases of the work, including

the required reporting procedure, to obtain the end result within the full purpose and intent of the Contract Documents for the project.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

Add the following Subparagraphs 3.3.4, 3.3.5, and 3.3.6 to 3.3:

3.3.4 The Contractor shall furnish sufficient forces, construction plans and equipment, and shall work such hours, including night shifts and overtime operation, as may be necessary to insure the execution of the Work in accordance with the approved progress schedule. If the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve the progress by increasing the number of shifts, overtime operations, days of work and the amount of construction plans, all without additional cost to the Owner.

3.3.5 Failure of the contractor to comply with the requirements under this provision shall be grounds for determination by the Architect that the Contractor is not executing the Work with such diligence as will insure completion within the time specified and such failure may constitute a substantial violation of the conditions of the Agreement.

3.3.6 Upon such determination, the Owner may terminate the Contractor's right to proceed with the Work, or any separable part thereof, in accordance with Article 14 of the General Conditions, or may withhold further payments as indicated in Article 9.5.1 also of the General Conditions.

3.4 LABOR AND MATERIALS

Add the following Subparagraphs 3.4.4, 3.4.5, 3.4.6, 3.4.7 to 3.4:

3.4.4 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in Section 01631 - Product Substitutions of the Specifications.

3.4.5 By making the request for substitutions based on Subparagraph 3.4.3 above, the Contractor:

.1 represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.

.2 represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified.

.3 certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and

.4 will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

3.4.6 The Contractor shall follow all specified and manufacturer's standards for Delivery, Storage and Handling of all products. All products that require storage in a climate controlled environment shall be so handled. In all cases the more stringent guidelines shall be followed.

3.4.7 The Contractor shall follow all specified and manufacturer's instructions and conditions for installation of all products and finishes.

3.9 SUPERINTENDENT

Delete Subparagraph 3.9.1 and substitute the following:

3.9.1 The Contractor shall employ and keep at the site of the work during its progress a competent and thoroughly experienced superintendent capable of handling all phases of the project. The Superintendent shall have any necessary assistants, foremen and timekeepers required by the scope of this project, and shall be acceptable to the Architect, and shall not be changed or transferred unless approved by the Architect, or ceases to be in the employ of the Contractor. If the Contractor must replace the Superintendent for any reason between "Notice-to-Proceed" and final Architect's certification of completion of the work, then the Contractor shall notify Architect that the existing Superintendent will be leaving the job on a specific date and that all job work shall cease after said date until a satisfactory replacement Superintendent is found, acceptable to the Architect, and physically present on the site, properly authorized and briefed by Contractor.

Add the following Subparagraphs 3.9.2 and 3.9.3 to 3.9:

3.9.4 The Superintendent shall represent the Contractor in the Contractor's absence and all directions given to the Superintendent shall be as binding as if given to the Contractor. Major and important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case.

3.10 CONTRACTORS CONSTRUCTION SCHEDULES

Add the following Subparagraph 3.10.4 to 3.10:

3.10.4 The contractor shall furnish, not later than 7 days after receipt of "Notice-to-Proceed", a bar-chart schedule showing the expected times of completion of the various stages of work on this project. The work headings therein shall correspond generally with the headings listed in the Contractor's Schedule of Values. During progress of the work the Contractor shall enter on the schedule the actual progress at the end of each month, and shall deliver two (2) copies to the Architect along with the Contractor's pay request. Contractor's pay request will not be processed until receipt and review of monthly updated bar-chart schedule.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

Add the following Subparagraph 3.11.1 to 3.11:

3.11.1 A copy of Toxic Substance List submitted by both the Contractor and Subcontractors to the Owner must be kept at the site during the duration of construction.

3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Add the following Subparagraphs 3.12.11, 3.12.12, and 3.12.13 to 3.12:

3.12.11 Shop Drawings and samples shall be dated and contain the following: name of project; project number; description or names of equipment, materials and items; and complete identification of locations at which materials or equipment are to be installed. If the shop drawings do not conform completely to the requirements of the Contract Documents, such nonconformance shall be specifically noted on the face of the drawings.

3.12.12 Submission of Shop Drawings and samples shall be accompanied by transmittal letter, containing project name, Contractor's name, number of drawings and samples, titles and other pertinent data.

3.12.13 Unless otherwise specified, the number of Shop Drawings and the number of samples which the Contractor shall submit and, if necessary, resubmit, is the number that the Contractor requires to be retained for the Contractor's use plus 2 which will be retained by the Architect/Engineer.

3.15 CLEANING UP

Add the following to the end of Subparagraph 3.15.1:

Keep interior of the building free of stored or unattended combustible materials.

3.18 INDEMNIFICATION

Delete Subparagraph 3.18.1 and substitute the following:

3.18.1 To the fullest extent permitted by law, the Contractor shall, for the sum of ten dollars ($10.00) and other good and valuable consideration paid by the Owner and the Architect/ Engineer individually, receipt hereby acknowledged by the Contractor, indemnify and hold harmless the Owner and the Architect/Engineer, their agents and employees from and against all claims, damages, losses and expenses including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property other than the Work itself, including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission by the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation or indemnity which would otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 3.18.

ARTICLE 7 - CHANGES IN THE WORK

7.2 CHANGE ORDERS

Add the following Subparagraph 7.2.2 to 7.2:

7.2.2 The Contractor is responsible for all affected work that is a result of an approved Change Order. Any changes required as a result of a Change Order shall be reflected in the price of the Change Order. Any additional work that becomes necessary after the Change Order has been approved will be made at the Contractor's expense.

7.3 CONSTRUCTION CHANGE DIRECTIVES

Delete first sentence of Subparagraph 7.3.7 and substitute the following:

7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Architect on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an allowance for overhead and profit in accordance with Clauses 7.3.10.1 through 7.3.10.6 below.

Delete Subparagraph 7.3.7.5 and substitute the following:

7.3.7.5 Cost of supervision and field personnel may be allowed when a contract time extension is approved which is directly attributable to the change.

Add the following Subparagraph 7.3.7.6 to 7.3:

7.3.6.6 Overhead shall include small tools, incidentals, general office and field office expenses, estimating, data entry and all other expenses not included in ‘cost’.

Add the following Subparagraph 7.3.11 to 7.3:

7.3.11 In Subparagraph 7.3.7, the allowance for the combined overhead and profit in the total cost to the Owner shall be based on the following schedule:

.1 For the Contractor, for Work performed by the Contractor's own forces, a maximum of fifteen percent (15%) of the cost.

.2 For the Contractor, for Work performed by the Contractor's Subcontractor, a maximum of seven and one-half percent (7-1/2%) of the amount due the Subcontractor.

.3 For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, a maximum of fifteen percent (15%) of the cost.

.4 For each Subcontractor for work performed by the Subcontractor's Sub-subcontractors, a maximum of seven and one-half percent (7-1/2%) of the amount due the Sub-subcontractor.

.5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.7.

.6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized also. In no case will a charge over $100.00 be approved without such itemization.

ARTICLE 8 - TIME

8.2 PROGRESS AND COMPLETION

Add the following Subparagraphs 8.2.4 and 8.2.5 to 8.2:

8.2.4 The work to be performed under the Contractor's Base Proposal as defined in the Contract Documents shall be substantially completed within consecutive calendar days defined in Owner/ Contractor Contract after receipt of Notice to Proceed. The work shall be finally completed within **fourteen (14)** calendar days after the date of substantial completion.

8.2.5 Failure to complete the Project within the time fixed in this Agreement will result in substantial injury to the Owner, and as damages arising from such failure cannot be calculated with any degree of certainty, according to the definition of "Substantial Completion" in Subparagraph 9.8.1 of the General Conditions, within the time fixed or within such further time, if any, as may be authorized in accordance with the Contract Documents, the Contractor shall pay to the Owner as Liquidated Damages for such delay, and not as a penalty, Two Hundred and Fifty dollars ($250. 00) for each and every calendar day elapsing between the date fixed for Substantial Completion and the date such Substantial Completion shall have been fully accomplished. It is also hereby agreed that if after **fourteen (14)** Calendar Days after Substantial Completion this Project is not fully and finally completed in accordance with the requirements of the Contract Documents, the Contractor shall pay to the Owner as Liquidated Damages, and not as a penalty, for such delay, one-fourth (1/4) of the rate previously indicated. These Liquidated Damages shall be payable in addition to any expenses or costs payable by the Contractor to the Owner under the provisions of the Contract Documents and shall not exclude the recovery of damages of the Owner under the Contract Documents.

This provision of Liquidated Damages for delay shall in no manner affect the Owner's right to terminate the Contract. The Owner's exercise of the right to terminate shall not release the Contractor from his obligation to pay Liquidated Damages. It is further agreed that the Owner may deduct from the balance of the Contract Sum held by the Owner the Liquidated Damages stipulated herein or such portions as said balance will cover.

** **Date of substantial completion and amount of liquidated damages will be defined in Owner / Contractor Contract.**

8.3 DELAYS AND EXTENSIONS OF TIME

Add the following Clause 8.3.1.1 to Subparagraph 8.3.1:

.1 Contract time is based on local average weather conditions, which includes the mean number of days of "Precipitation of 0.01 inches or more" as indicated in the Normal, Means, and Extremes section of the U.S. NOAA Local Climatological Data report for the project area. These days shall be referred to as "Mean Rainfall Days". Days when rainfall exceeds 0.10 inch, as measured and recorded by a rain recording gauge to be located and maintained by the Contractor within one (1) mile of the project site, shall be referred to as "Rain Days". Time extensions shall be granted upon written request, on a one for one basis, only when Rain Days in a month exceed Mean Rainfall Days for that month and when rainfall in that month delays a Contractor work task that is on the Critical Path of the C.P.M. schedule or other type of Architect approved project schedule. Requests for extension of time due to rainfall shall be made in writing, with effects on the Critical Path schedule noted, to the Architect not more than fourteen (14) days after the end of the month during which the extra Rain Days occur.

Add the following to the end of Subparagraph 8.3.2:

Extension of time requests due to adverse weather shall be submitted within fourteen (14) days after adverse weather. The Contractor shall submit the referenced climatological summary data immediately upon its availability and shall show how the time extension request corresponds with the climatological data. Extension of contract time due to adverse weather shall be for Atime only@ and will not be the basis of any monetary claim or request for 'extended general conditions'.

ARTICLE 11 INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

Delete Subparagraph 11.1.1 and substitute the following:

11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the State of Florida such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. All insurance policies shall be issued and countersigned by representatives of such companies duly authorized for the State of Florida and shall be written on ISO standard forms or their equivalents. The Contractor shall provide the ISO Commercial General Liability policy for general liability coverage's. All liability policies shall provide that the Owner is a named additional insured as to the operations of the Contractor under the Agreement and shall provide the Severability of Insured's Provision. The Owner shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the responsibility solely of the Contractor and/or Subcontractor providing such insurance. This insurance shall protect the Contractor from the following claims:

.1 claims under workers' or workmen compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;

.2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;

.3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

.4 claims for damages insured by usual personal injury liability coverage including claims which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;

.5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

.6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and

.7 claims involving contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18.

Delete Subparagraph 11.1.2 and substitute the following:

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than limits of $250,000 per person, $500,000 per occurrence or a minimum of $500,000 combined single limit. Coverage's, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment. The insurance required by Subparagraph 11.1.1 shall include contractual liability insurance applicable to the Contractor's obligations under Paragraph 3.18 and coverage for the "XCU" exposure.

.1 Worker's Compensation: The Contractor shall secure and maintain for the life of this Agreement, valid Worker's Compensation Insurance as required by Chapter 440, Florida Statutes. Copies of the insurance policy shall be filed with the Owner no later than 60 days after execution of the Owner-Contractor Agreement.

.2 Automobile Liability: The Contractor shall secure and maintain, during the life of this Agreement, Automobile Liability insurance on all vehicles against bodily injury and property damage in at least the amounts of $100,000 per person, $300,000 per occurrence, and property damage in at least the amount of $100,000; or combined single limit of $300,000 for bodily injury and property damage.

Delete Subparagraph 11.1.3 and substitute the following:

11.1.3 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates and the insurance policies required by this Paragraph 11.1 shall contain a provision that coverage's afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. If any of the foregoing insurance coverage's are required to remain in force after final payment an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Subparagraph 9.10.2 The Contractor shall furnish one copy each of Certificates of Insurance for each copy of the Agreement which shall specifically set forth evidence of all insurance coverage required by the Contract Documents. The Certificate of Insurance shall be dated and show the name of the insured Contractor, the specific job by name and job number, the name of the insurer, the number of the policy, its effective date, and its termination date. The Contractor shall furnish a copy of the insurance policy to the Owner within 30 days following execution of the Agreement. If the Acord form certificate is used, the Supplemental Attachment form, AIA document G715, shall be completed, signed by Contractor's insurance representative and attached to the Acord certificate.

The Supplemental Attachment, The American Institute of Architects' (AIA) Document G715 is included at the end of this section.

11.3 PROPERTY INSURANCE

Delete Subparagraph 11.3.1 and substitute the following:

11.3.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the State of Florida, property insurance, written on a Builder's Risk completed value form, in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire Work at the site, on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Paragraph 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.3 to be covered, whichever is earlier. This insurance shall include interests of the Owner, the Contractor and Subcontractors in the Work.

Delete Subparagraph 11.3.1.1, 11.3.1.2, and 11.3.1.3 and substitute the following:

11.3.1.1 Property insurance shall be on a Special Causes of Loss form or its equivalent, including reasonable compensation for the Architect/Engineer's services and expenses required as a result of such insured loss.

11.3.1.2 Any special insurance requirements will be addressed in the Supplementary Conditions.

11.3.1.3 If the property insurance provides deductibles, the Contractor shall pay costs not covered because of such deductibles.

Delete Subparagraph 11.3.2 and substitute the following

11.3.2 Boiler and Machinery Insurance: The Contractor shall purchase and maintain an appropriate installation floater which shall specifically cover such insured objects which are subject to the boiler and machinery hazards during installation and until final acceptance by the Owner.

Add the following Subparagraphs 11.3.2.1, 11.3.2.2, and 11.3.2.3:

11.3.2.1 Before an exposure to loss may occur, the Contractor shall file with the Owner a copy of each policy that includes insurance coverage's required by this Paragraph 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner.

11.3.2.2 A loss insured under property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the Insured's, as their interests may appear. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Subcontractors in similar manner.

11.3.2.3 The Owner as fiduciary shall, upon occurrence of an insured loss, deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an award as provided in Paragraph 4.5. If after such loss no other special agreement is made, replacement of damaged property shall be covered by appropriate Change Order.

Add Subparagraph 11.3.11 to 11.3:

11.3.11 Partial occupancy or use in accordance with Paragraph 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

11.4 PERFORMANCE BOND AND PAYMENT BOND

Delete Subparagraph 11.4.1 and 11.4.2 and substitute the following:

11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising there under as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

11.4.2 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 permit a copy to be made.

END OF SECTION 000800

PAGE LEFT BLANK INTENTIONALLY

AIA® Document G715™ – 2017

Supplemental Attachment for ACORD Certificate of Insurance 25

PROJECT: *(name and address)* .	**CONTRACT INFORMATION:** Contract For: Date:	**CERTIFICATE INFORMATION:** Producer: Insured: Date:
OWNER: *(name and address)*	**ARCHITECT:** *(name and address)*	**CONTRACTOR:** *(name and address)*

A. General Liability		**Yes**	**No**	**N/A**
1.	Does this policy include coverage for:			
a	Damages because of bodily injury, sickness, or disease, including occupational sickness or disease, and death of any person?	☐	☐	☐
b	Personal injury and advertising injury?	☐	☐	☐
c	Damages because of physical damage to or destruction of tangible property, including the loss of use of such property?	☐	☐	☐
d	Bodily injury or property damage arising out of completed operations?	☐	☐	☐
e	The Contractor's indemnity obligations included in the Contract Documents?	☐	☐	☐
2.	Does this policy contain an exclusion or restriction of coverage for:			
a	Claims by one insured against another insured, where the exclusion or restrictions is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim?	☐	☐	☐
b	Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor?	☐	☐	☐
c	Claims for bodily injury other than to employees of the insured?	☐	☐	☐
d	Claims for the Contractor's indemnity obligations included in the Contract Documents arising out of injury to employees of the insured?	☐	☐	☐
e	Claims for loss excluded under a prior work endorsement or other similar exclusionary language?	☐	☐	☐
f	Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language?	☐	☐	☐
g	Claims related to residential, multi-family, or other habitational projects?	☐	☐	☐
h	Claims related to roofing?	☐	☐	☐
i	Claims related to exterior insulation finish systems, synthetic stucco, or similar exterior coatings or surfaces?	☐	☐	☐
j	Claims related to earth subsistence or movement?	☐	☐	☐
k	Claims related to explosion, collapse, and underground hazards?	☐	☐	☐

B. Other Insurance Coverage		**Yes**	**No**	**N/A**
1.	Indicate whether the Contractor has the following insurance coverages and, if so, indicate the coverage limits for each.			
a	Professional liability insurance Coverage limits:	☐	☐	☐
b	Pollution liability insurance Coverage limits:	☐	☐	☐
c	Insurance for maritime liability risks associated with the operation of a vessel Coverage limits:	☐	☐	☐

AIA Document G715™ – 2017. Copyright © 1991 and 2017 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:12:11 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA4B)

d	Insurance for the use or operation of manned or unmanned aircraft Coverage limits:	☐	☐	☐
e	Property insurance Coverage limits:	☐	☐	☐
f	Railroad protective liability insurance Coverage limits:	☐	☐	☐
g	Asbestos abatement liability insurance Coverage limits:	☐	☐	☐
h	Insurance for physical damage to property while it is in storage and in transit to the construction site Coverage limits:	☐	☐	☐
i	Other:	☐	☐	☐

_____

(Authorized Representative)

_____

(Date of Issue)

AIA Document G715™ – 2017. Copyright © 1991 and 2017 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:12:11 ET on 03/02/2021 under Order No.8154658269 which expires on 11/13/2021, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA4B)

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.02 PROJECT DESCRIPTION

A. The Project shall consist of construction as indicated on drawings for the Gadsden County EMS Facility
   1. Project Location: Joe Adams Road
   2. Owner: Gadsden County Board of County Commissioners

B. Contract Documents, May26, 2025 (Construction Documents) were prepared for the Project by Clemons Rutherford and Associates, 2027 Thomasville Road, Tallahassee, Florida.

C. The work consists of:
   1. Site work (grading, asphalt paving, parking striping, etc.)
   2. New Pre-Engineered Metal Building (PEMB).
   3. New metal roof.
   4. New mechanical, electrical and plumbing systems.
   5. New interior partitions, millwork, and finishes.
   6. New doors and hardware.
   7. New bays for bus and fleet vehicles.
   8. Coordination of Owner furnished equipment.

D. Work Sequence: The work will be conducted in such a sequence to minimize interference to Owner's normal activities on site and adjacent sites.

E. Applicable Codes: All work shall be completed in accordance with the following codes where applicable:

Florida Building Code, Building (FBC,B)	2023 Edition.
Florida Building Code, Mechanical (FBC,M)	2023 Edition.
Florida Building Code, Fuel Gas (FBC,FG)	2023 Edition.
Florida Building Code, Plumbing (FBC.P)	2023 Edition.
Florida Fire Prevention Code, (FFPC)	2023 Edition.
Florida Building Code, HVHZ	2023 Edition.
ASCE 7	2010 Edition
NFPA 101, Life safety code	2024 Edition
NFPA 70, National Electric Code (NEC)	2023 Edition.

F. Product Approval: Contractor shall be responsible for providing Florida Product Approval Numbers OR certify that products installed conform to the Florida Building Code 2014 Edition, for each product installed in the building envelope.

G. General Contractor: A General Contractor has been engaged for this project to serve as Contractor who in turn Subcontracts all or portions of the work. In Divisions 1 through 16, the terms “General Contractor” and “Contractor” are synonymous.

1.03 CONTRACTOR USE OF PREMISES

A. General: During the construction period, the contractor shall have limited use of the premises for construction activities in areas indicated or agreed upon by the Owner. Surrounding existing buildings shall remain operational, accessible, and be occupied throughout the duration of construction.

1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
2. Keep surrounding driveways, sidewalks, and entrances serving the premises clear and available to the Owner and Visitors at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
3. Designated wetland areas/easements shall remain undisturbed.
4. Do not access adjacent jail site without prior approval.

B. Construction Safeguards: The contractor shall construct safeguards to protect personnel and visitors from the construction areas and areas where materials are stored. Limits of the construction safeguards shall be determined by the Owner.

Note: Construction area, including building and buildings being renovated, shall remain accessible to handicap during entire construction process. Contractor is responsible for providing temporary access to building where needed. This includes temporary ramps, walkways, handrails and all other necessary items required. Contractor shall be responsible for inspecting construction site to determine the extent of temporary access needed. (These items are not necessarily shown on drawings). Contractor shall comply with all ADA requirements.

1.04 DRESS CODE AND CONDUCT: All workmen on the construction site shall wear a shirt at all times. No workmen shall engage in any verbal expressions or physical gestures directed towards all visitors, employees of Owner, or any other person at this construction site which may be considered sexual harassment. Any person found engaging in any offensive conduct will be banned from this construction site.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION

3.01 LAYOUT OF THE WORK: **Dimensions and elevations indicated on the drawings shall be verified by the Contractor prior to commencement of work. Discrepancies between drawings, specifications, and existing conditions shall be referred to the Architect for adjustment before affected work is performed. Failure to make such notification shall place responsibility upon the Contractor to carry out the work in a satisfactory and workmanlike manner at no additional cost to the Owner.**

3.02 RESTORATION

A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work.

B. Existing work (site utilities, electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to Architect before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.

C. Upon completion of contract, deliver work complete and undamaged. Damage that may be caused by Contractor or his workmen to existing structures, grounds, and utilities or work done by others shall be repaired by him at no additional cost to the Owner and left in as good condition as existed prior to damaging.

D. At his own expense, Contractor shall immediately restore to service and repair any damage he may cause to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems which are not scheduled for discontinuance or abandonment. Contractor shall employ appropriate parties for repair work.

3.03 CLEANING UP

A. At completion of the work, the Contractor shall remove from the building and site all tools, appliances, surplus materials, debris, temporary structures and facilities, scaffolding, and equipment; sweep clean the building thoroughly and remove all marks, stains, fingerprints, dust, dirt, paint drippings, and the like from all surfaces; clean tile work, windows, plumbing, and other fixtures and surfaces.

B. All hardware and other unpainted metals shall be cleaned and polished, and all equipment and paint or decorated work shall be cleaned and touched up, if necessary. Surfaces that are waxed shall be polished. Remove all temporary labels, tags, and paper covering throughout the building.

C. The exterior of the buildings, the grounds, approaches, equipment, pavement, sidewalks, etc., shall be cleaned similar to interior of buildings and left in good order at the time of final acceptance, with paint surfaces clean and unbroken, hardware clean and polished, all repair work accomplished and dirt areas scraped and cleared of weed growth.

D. Cleaning, polishing, sealing, waxing, and all other finish operations indicated on the drawings, or required in the specifications, shall mean that this is the required condition at the time of acceptance of all work under the contract.

END OF SECTION 011000

PAGE LEFT BLANK INTENTIONALLY

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.01 AN ALTERNATE is a separate piece of work proposed by Bidders and stated on the Bid Form for certain items that may be added to or deducted from Base Bid amount, which the Owner may or may not decide to accept, a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.

The Owner shall have the right to accept Alternates in any order and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

1.02 COORDINATION: Contractor shall coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted alternate is complete and fully integrated into the Project.

1.03 NOTIFICATION: Immediately following Contract award, the Architect shall prepare and distribute to each party involved, notification of the status of each alternate. Indicate whether alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to alternates.

1.04 SCHEDULE: A "Schedule of Alternates" is included below. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each alternate.

Include as part of each alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the alternate.

1.05 SCHEDULE OF ALTERNATES

Alternate No. 1
Build out between gridlines 6 and 8 shown on sheets A1.1, A6.0, and A8.0.

Alternate No. 2
Reduce the building area by removing the future expansion between gridlines 6 and 8 shown on sheet A1.2

Alternate No. 3
Remove all sitework ACCEPT asphalt paving from scope. If alternate 3 is accepted owner is responsible for all of the items associated with the sitework.

END OF SECTION 012300

PAGE LEFT BLANK INTENTIONALLY

SECTION 012500 – SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.01 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:

A. Substitutions requested during the bidding period, and accepted prior to award of Contract.

B. Revisions to Contract Documents requested by the Owner or Architect.

C. Specified options of products and construction methods included in Contract Documents.

D. Compliance with governing regulations and orders issued by governing authorities.

1.02 SUBMITTAL: Requests for substitution will be considered if received within 30 days after commencement of the Work. Requests received may be considered or rejected at the discretion of the Architect after review. See mechanical and electrical "General Provisions" section for special substitution requirements.

A. Submit 3 copies of each request for substitution in the form and in accordance with procedures for Change Order proposals.

B. Identify the product, or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Document compliance with requirements for substitutions, and the following information, as appropriate:

1. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.

2. Samples, where applicable or requested.

3. A comparison of significant qualities of the proposed substitution with those specified.

4. A list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors: that will be necessary to accommodate the proposed substitution.

5. A statement indicating the substitution's effect on the Construction Schedule compared to the Schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.

6. Cost information, including a proposal of the net change, if any in the Contract Sum.

7. Certification 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.

C. Architect's Action: Within one week of receipt of the request for substitution, the Architect will request additional information necessary for evaluation. Within 2 weeks of receipt of the request, or one week of receipt of additional information, whichever is later, the Architect will notify the Contractor of acceptance or rejection. If a decision on use of a substitute cannot be made within the time allocated, use the product specified. Acceptance will be in the form of a Change Order.

1.03 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.

A. The request is directly related to an "or approved equal" clause or similar language in the Contract Documents.

B. 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.

C. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

D. 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.

E. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.

F. The specified product or method of construction cannot be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.

G. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provide the required warranty.

1.04 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 does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

END OF SECTION 01631

AIA® Document G702™ – 1992

Application and Certificate for Payment

TO OWNER:

PROJECT:

APPLICATION NO: 001
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.
Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM	$0.00
2. NET CHANGE BY CHANGE ORDERS	$0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2)	$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	$0.00
5. RETAINAGE:	
a. 0 % of Completed Work (Column D + E on G703)	$0.00
b. 0 % of Stored Material (Column F on G703)	$0.00
Total Retainage (Lines 5a + 5b or Total in Column I of G703)	$0.00
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)	$0.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)	$0.00
8. CURRENT PAYMENT DUE	$0.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)	$0.00

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

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

CONTRACTOR:

By: _____ Date: _____

State of:

County of:

Subscribed and sworn to before me this day of

Notary Public:

My Commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

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

AMOUNT CERTIFIED $0.00

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

ARCHITECT:

By: _____ Date: _____

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

AIA Document 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.** This document was produced by AIA software at 10:42:41 ET on 06/24/2019 under Order No. 8856529880 which expires on 11/14/2019, and is not for resale.
User Notes: (3B9ADA6C)

PAGE LEFT BLANK INTENTIONALLY

AIA® Document G703™ – 1992

Continuation Sheet

AIA Document, G702™–1992, Application and Certification for Payment, or G736™–2009, Project Application and Project Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.
In tabulations below, amounts are in US dollars.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:	001
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					
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
	GRAND TOTAL	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**0.00%**	**$0.00**	**$0.00**

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.** This document was produced by AIA software at 15:44:54 ET on 02/12/2020 under Order No. 3994842707 which expires on 11/13/2020, and is not for resale.
User Notes: (3B9ADA5E)

AIA® Document G703®S – 2017

Continuation Sheet, Contractor-Subcontractor Version

AIA Document G702®S, Application and Certification for Payment, Subcontractor Version, containing Subcontractor's signed certification is attached.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:	001 - Draft
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					
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
	GRAND TOTAL	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**0.00%**	**$0.00**	**$0.00**

AIA Document G703S – 2017. Copyright © 2017. All rights reserved. "The American Institute of Architects," "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are trademarks of The American Institute of Architects. This document was produced at 10:43:25 ET on 01/27/2025 under Order No.3104239823 which expires on 02/28/2025, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail docinfo@aiacontracts.com.
User Notes: (3B9ADAA5)

AIA® Document G706™ – 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)* Draft	**ARCHITECT'S PROJECT NUMBER:**	OWNER: ☐ ARCHITECT: ☐
	CONTRACT FOR: General Construction	CONTRACTOR: ☐
TO OWNER: *(Name and address)*	**CONTRACT DATED:**	SURETY: ☐ OTHER: ☐

STATE OF:
COUNTY OF:

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

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

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

Indicate Attachment ☐ Yes ☒ No

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

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

CONTRACTOR: *(Name and address)*

BY: _____
(Signature of authorized representative)

_____
(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

AIA Document G706™ – 1994. Copyright © 1970 and 1994 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 09:14:33 ET on 08/22/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA53)

PAGE LEFT BLANK INTENTIONALLY

AIA® Document G706A™ – 1994

Contractor's Affidavit of Release of Liens

PROJECT: *(Name and address)* Draft	**ARCHITECT'S PROJECT NUMBER:**	OWNER: ☐
	CONTRACT FOR: General Construction	ARCHITECT: ☐
TO OWNER: *(Name and address)*	**CONTRACT DATED:**	CONTRACTOR: ☐
		SURETY: ☐
		OTHER: ☐

STATE OF:
COUNTY OF:

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

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

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

CONTRACTOR: *(Name and address)*

BY: _____

(Signature of authorized representative)

_____

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

AIA Document G706A™ – 1994. Copyright © 1982 and 1994 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 09:15:22 ET on 08/22/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA63)

PAGE LEFT BLANK INTENTIONALLY

AIA® Document G707™ – 1994

Consent Of Surety to Final Payment

PROJECT: *(Name and address)*
Draft

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR: General Construction

CONTRACT DATED:

TO OWNER: *(Name and address)*

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
SURETY: ☐
OTHER: ☐

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

, SURETY,

on bond of
(Insert name and address of Contractor)

, CONTRACTOR,

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

, OWNER,

as set forth in said Surety's bond.

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

(Surety)

(Signature of authorized representative)

Attest:
(Seal):

(Printed name and title)

AIA Document G707™ – 1994. Copyright © 1982 and 1994 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 09:16:28 ET on 08/22/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA5A)

PAGE LEFT BLANK INTENTIONALLY

AIA® Document G707A™ – 1994

Consent of Surety to Reduction in or Partial Release of Retainage

PROJECT: *(Name and address)*	**ARCHITECT'S PROJECT NUMBER:**	OWNER: ☐
	CONTRACT FOR:	ARCHITECT: ☐
		CONTRACTOR: ☐
TO OWNER: *(Name and address)*	**CONTRACT DATED:**	SURETY: ☐
		OTHER: ☐

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

, SURETY,

on bond of
(Insert name and address of Contractor)

, CONTRACTOR,

hereby approves the reduction in or partial release of retainage to the Contractor as follows:

The Surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

, OWNER,

as set forth in said Surety's bond.

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

_____
(Surety)

_____
(Signature of authorized representative)

Attest:
(Seal):

_____
(Printed name and title)

AIA Document G707A™ – 1994. Copyright © 1971, 1982 and 1994 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11:11:07 ET on 05/26/2022 under Order No.2114256091 which expires on 11/13/2022, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org.
User Notes: (3B9ADA5D)

PAGE LEFT BLANK INTENTIONALLY

SECTION 013100 - PROJECT COORDINATION

PART 1 - GENERAL

1.01 THIS SECTION specifies requirements for project coordination including:

Coordination with other Contractors.
Administrative and supervisory personnel.
General installation provisions.
Cleaning and protection.

1.02 COORDINATION: Coordinate activities included in various Sections to assure efficient and orderly installation of each component. Coordinate operations included under different Sections that are dependent on each other for proper installation and operation.

Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain the best results.

Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.

Make provisions to accommodate items scheduled for later installation.

Prepare memoranda for distribution to each party involved outlining required coordination procedures. Include required notices, reports, and attendance at meetings.

Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.

1.03 ADMINISTRATIVE PROCEDURES: Coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and ensure orderly progress. Such activities include:

Preparation of schedules.
Power and utility shutdowns.
Installation and removal of temporary facilities.
Delivery and processing of submittals.
Progress meetings.
Project closeout activities.

1.04 COORDINATION DRAWINGS: Prepare Coordination Drawings where close coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space necessitates maximum utilization of space for efficient installation of different components.

Show relationship of components shown on separate Shop Drawings.
Indicate required installation sequences.

1.05 STAFF NAMES: Within 15 days of Notice to Proceed, submit a list of Contractor's staff assignments, including Superintendent and personnel at the site; identify individuals, their duties and responsibilities, addresses and telephone numbers.

Post copies in the Project meeting room, the field office, and at each temporary telephone.

1.06 INSPECTION OF CONDITIONS: The Installer of each component shall inspect the substrate and all other conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected.

1.07 MANUFACTURER'S INSTRUCTIONS: Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in Contract Documents.

1.08 INSPECT material immediately upon delivery and again prior to installation. Reject damaged and defective items.

1.09 PROVIDE ATTACHMENT and connection devices and methods necessary for securing each construction element. Secure each construction element true to line and level. Allow for expansion and building movement.

1.10 VISUAL EFFECTS: Provide uniform joint widths in exposed Work. Arrange joints to obtain the best effect. Refer questionable choices to the Architect for decision.

1.11 RECHECK MEASUREMENTS and dimensions, including elevations, before starting installation.

1.12 INSTALL EACH COMPONENT during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.

1.13 COORDINATE TEMPORARY ENCLOSURES with inspections and tests, to minimize uncovering completed construction for that purpose.

1.14 MOUNTING HEIGHTS: Where mounting heights are not indicated, install components at standard heights for the application indicated or refer to the Architect.

1.15 CLEANING AND PROTECTION: During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

Clean and maintain completed construction as often as necessary through the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

Limiting Exposures: Supervise operations to ensure that no part of construction, completed or in progress, is subject to harmful or deleterious exposure. Such exposures include, but are not limited to the following:

Excessive static or dynamic loading.
Excessive internal or external pressures.
Excessive weathering.
Excessively high or low temperatures or humidity.
Air contamination or pollution.
Water or ice.
Chemicals or solvents.
Heavy traffic, soiling, staining and corrosion.
Rodent and insect infestation.
Unusual wear or other misuse.
Contact between incompatible materials.
Theft or vandalism.

END OF SECTION 013100

SECTION 013150 - CUTTING AND PATCHING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.

1.02 SUMMARY: This Section specifies administrative and procedural requirements for cutting and patching.

Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.

Refer to Division-15 and Division-16 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.03 SUBMITTALS

A. Cutting and Patching Proposal: Where approval of procedures for cutting and patching is required before proceeding, submit a proposal describing procedures well in advance of the time cutting and patching will be performed and request approval to proceed. Include the following information, as applicable, in the proposal:

Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.

Describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.

List products to be used and firms or entities that will perform Work.

Indicate dates when cutting and patching is to be performed.

List utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.

1.04 QUALITY ASSURANCE

A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.

B. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.

1.05 VISUAL REQUIREMENTS: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.01 MATERIALS: Use materials that are identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.01 INSPECTION: Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

3.02 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.

Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas. Take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

3.03 PERFORMANCE

A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.

B. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations.

In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.

Comply with requirements of applicable Sections of Division-2 where cutting and patching requires excavating and backfilling. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

3.04 PATCHING: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.

Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken area containing the patch, after the patched area has received primer and second coat.

3.05 CLEANING: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely from non-intended locations any paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 013150

PAGE LEFT BLANK INTENTIONALLY

SECTION 013200 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 SUMMARY: This Section specifies requirements for Project meetings including:

Pre-Construction Conference.
Progress Meetings.

1.02 PRE-CONSTRUCTION CONFERENCE: Architect shall conduct a pre-construction conference after execution of the Agreement and prior to commencement of construction activities. Review responsibilities and personnel assignments.

Attendees: The Owner, Architect and their consultants, the Contractor and its superintendent, subcontractors, suppliers, manufacturers, and other concerned parties shall be represented by persons authorized to conclude matters relating to the Work.

Agenda: Discuss significant items that could affect progress, including the tentative construction schedule, critical sequencing, use of the premises, procedures for processing Change Orders and equipment deliveries.

Review progress of other activities and preparations for the activity under consideration at each conference, including time schedules, manufacturer's recommendations, weather limitations, substrate acceptability, compatibility problems and inspection and testing requirements.

Record significant discussions, agreements and disagreements of each conference, along with the approved schedule. Distribute the meeting record to everyone concerned, promptly, including the Owner and Architect.

Do not proceed if the conference cannot be successfully concluded. Initiate necessary actions to resolve impediments and reconvene the conference at the earliest feasible date.

1.03 PROGRESS MEETINGS: Conduct progress meetings at regular monthly intervals. Notify the Owner and Architect of scheduled dates. Coordinate meeting dates with preparation of the payment request.

Attendees: The Owner and Architect, each subcontractor, supplier or other entity concerned with progress or involved in planning, coordination or performance of future activities shall be represented by persons familiar with the Project and authorized to conclude matters relating to progress.

Agenda: Review minutes of the previous progress meeting. Review significant items that could affect progress. Include topics appropriate to the current status of the Project including:

RFIs	Change Orders
Scheduling	Submittals

Reporting: Distribute copies of the minutes of the meeting to each party present and to parties who should have been present.

1.04 CONTRACTOR'S CONSTRUCTION SCHEDULE: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

Review the present and future needs of each entity present, including such items as:

Time.
Sequences.
Deliveries.
Off-site fabrication problems.
Site utilization.
Temporary facilities and services.
Hazards and risks.
Quality and Work standards.
Change Orders.
Documentation of information for payment requests.

END OF SECTION 013200

SECTION 013300 - SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL PROCEDURES

A. Coordinate submittal preparation with performance of construction activities, and with purchasing or fabrication, delivery, other submittals and related activities. Transmit in advance of performance of related activities to avoid delay.

B. Coordinate transmittal of different submittals for related elements so processing will not be delayed by the need to review concurrently for coordination. The Architect reserves the right to withhold action on a submittal requiring coordination until related submittals are received.

1.02 PROCESSING: Allow two weeks for initial review. Allow more time if processing must be delayed for coordination with other submittals. The Architect will notify the Contractor when a submittal must be delayed for coordination. Allow two weeks for reprocessing each submittal.

No extension of time will be authorized because of failure to transmit submittals sufficiently in advance of the Work to permit processing.

1.03 SUBMITTAL PREPARATION: Place a label or title block on each submittal for identification. Provide two 4" x 5" spaces on the label or beside the title block on Shop Drawings to record Contractor's review and approval markings and action taken. Include the following information on the label for processing and recording action taken. Submittals received without a signed Contractor's Approval Stamp will be returned for resubmittal with no action taken.

Project name.
Date.
Name and address of Contractor.
Name and address of supplier.
Name of manufacturer.
Number and title of appropriate Specification Section.
Drawing sheet number and detail references, as required.

1.04 SUBMITTAL TRANSMITTAL: Package submittals appropriately for transmittal and handling. Transmit with a transmittal form. Submittals received from other than the Contractor will be returned without action.

Transmittal Form: Use AIA Document G 810 or other form acceptable to Architect. On the form record requests for data, and deviations from Contract Documents. Include Contractor's certification that information complies with Contract Documents.

1.05 CONTRACTOR'S CONSTRUCTION SCHEDULE: Submit a fully developed, CPM type construction schedule, within 30 days after the date of the Owner's issuance of a Notice to Proceed. Use the categories of work in the schedule to establish the categories in the "Schedule of Values".

As work progresses, mark the schedule to indicate Actual Completion.

Provide notations on the Schedule depicting the consequences on the Work from construction phasing.

Prepare the schedule on sheets of sufficient width to show data for the entire construction period.

Secure commitments for performing critical construction operations from parties involved. Coordinate each activity with other activities and show in proper sequence; include minor elements involved in the construction sequence. Indicate sequences necessary for completion of related portions.

Coordinate the Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests and other schedules.
Schedule completion in advance of the date established for Substantial Completion. Schedule Substantial Completion to allow time for the Architect's procedures necessary for certification of Substantial Completion.

Print and distribute schedule following initial approval to the Architect, Owner, subcontractors and other parties required to comply with scheduled dates. Redistribute after any approved revisions. Post copies in the temporary field office. Submit update schedule with each Pay Application.

1.06 DAILY CONSTRUCTION REPORTS: Prepare a daily construction report, recording information concerning events at the site. Submit duplicate copies to the Architect at weekly intervals. Include the following information:

List of subcontractors at the site.
Work Activities.
High and low temperatures, general weather conditions.
Accidents, stoppages, delays, shortages, losses.
Emergency procedures.
Change Orders received, implemented.
Partial Completions, occupancies.
Substantial Completions authorized.
Other relevant dates.

1.07 SUBMITTALS: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 4 sets plus the number of sets required by the Contractor; maximum eight (8) sets. The Architect will retain four sets and return the others marked with the action taken. **(Note: Architect will mark only one (1) set for return to the Contractor with action taken and/or modifications required.)** Maintain Sample sets at the Project site, for quality comparisons throughout construction phase.

Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

1.08 ARCHITECT'S ACTION: Except for submittals for record, information or similar purposes, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return. Compliance with specified characteristics is the Contractor's responsibility.

Action Stamp: The Architect will stamp each submittal with a self-explanatory action stamp. The stamp will be appropriately marked to indicate action taken.

1.09 DISTRIBUTION: Furnish copies of final submittal to installers, and others required for performance of construction activities. Show distribution on transmittal forms. Do not proceed with installation until an applicable copy of Product Data is in the installer's possession. Do not permit use of unmarked copies of Product Data in connection with construction.

1.10 SHOP DRAWINGS: Submit information, drawn to accurate scale. Submittals shall **indicate deviations from Contract Documents**. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Include the following information:

Project Name.
Location.
Suppliers Name.
Date.
Drawing No.
Specification Section Reference.
Dimensions.
Identification of products and materials included.
Compliance with specific standards.
Notation of coordination requirements.
Notation of dimensions established by field measurement.

Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 24" x 36".

Initial Submittal: Submit one correctable translucent print and two blue-line print for review; the reproducible print will be returned.

Final Submittal: Submit four (4) blue or black line prints of the original submittal for use by the Architect/Engineer, Owner and Contractor.

Do not use Shop Drawings without a Architects stamp indicating action taken in connection with construction.

The Contractor shall schedule all shop drawing submittals to allow sufficient time for one initial review and two resubmittal reviews.

1.11 COORDINATION DRAWINGS are a special type of shop drawing depicting relationship and integration of different construction elements requiring coordination during fabrication or installation to fit and function as intended.

Preparation of coordination drawings is described in these Specifications under "Project Coordination" and may include components previously shown on shop drawings or product data.

Submit for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

1.12 PRODUCT DATA: Collect Product Data into a single submittal for each element or system. Mark each copy to show applicable choices and options. Where Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

Manufacturer's printed recommendations.
Compliance with recognized trade association standards.
Compliance with recognized testing agency standards.
Application of testing agency labels and seals.
Notation of dimensions verified by field measurement.
Notation of coordination requirements.

A. Submittals: Submit 3 copies. The Architect will retain two and will return the others. **Note:** The Architect will mark only one set for return to the Contractor with action taken and/or modifications required. The Contractor will be responsible to see that any notes made by the Architect are made on all copies.

Unless noncompliance with Contract Documents, the submittal may serve as the final submittal.

B. Distribution: Furnish copies of final submittal to installers and others required for performance of construction activities. Show distribution on transmittal forms. Do not proceed with installation until an applicable copy of Product Data is in the installers possession.

1.13 SAMPLES: Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics, and a comparison of these characteristics between the final submittal and the component as delivered and installed. Where variations are inherent in the product, submit multiple units that show limits of the variations.

Refer to other Sections for Samples that illustrate details of assembly, fabrication techniques, workmanship, connections, operation and similar characteristics.

Refer to other Sections for Samples to be returned for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.

Sample sets may be used to obtain final acceptance of the construction associated with each set.

Preliminary submittals: Where Samples are for selection of characteristics from a range of choices, submit a full set of choices for the product. Preliminary submittals will be reviewed and returned indicating selection and other action.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

PART 4 - SCHEDULES

4.01 The following Submittal Schedule is for ***REFERENCE ONLY***. Items listed may or may not be required for this project.

SUBMITTAL SCHEDULE		
SECTION	**TYPE OF SUBMITTAL**	**DESCRIPTION**
00610 - Performance Bond and Labor and Material Bond	Bonds	Performance Bond, Labor and Material Bond
00840 - List of Subcontractors	List	Subcontractors, Suppliers, Principal Manufactures
01027 - Application for Payment	Schedule of Values Application for Payment	Initial and Subsequent Initial and Subsequent
01040 - Project Coordination	List	Staff Names
01300 - Submittals	Construction Schedule Submittal Schedule Daily Construction Reports	
02070 - Selective Demolition	Schedule	Demolition Schedule
02280 - Termite Control	Warranty	Soil Treatment Solution
02510 - Concrete Paving	Shop Drawings	Walkways/Curb Layout
031119 - Concrete	Shop Drawings	Formwork Reinforce Placement/Schedule
042000 - Unit Masonry	Product Data	Grout/Mortar, Joint Reinforcement

SUBMITTAL SCHEDULE		
SECTION	**TYPE OF SUBMITTAL**	**DESCRIPTION**
	Field Mock-Up	Masonry Wall
051200 – Structural Steel	Product Data Shop Drawings Certification	Assembly and Installation Instructions Metal Fabrication Metal and Steel Test Results
055000 - Metal Fabrication	Product Data Shop Drawings Certification	Assembly and Installation Instructions Metal Fabrication Metal and Steel Test Results
06192 - Prefabricated Wood Trusses	Shop Drawings	Sizes, Design Information
061000 - Rough Carpentry	Product Data Samples	
064023 - Interior Architectural Woodwork	Shop Drawings Samples	Casework Plastic Laminate, Hardware
071326 - Sheet Membrane Waterproofing	Product Data	Technical Data and Recommendations
072116 - Building Insulation	Product Data	Each Type of Insulation Required
076200 - Flashing and Sheet Metal	Product Data Guarantee	Roofing and Flashing Materials Maintenance Guarantee
074113 – Preformed Walls and Roof Panels	Product Data Samples	Manufacturer=s Information
079200 - Joint Sealers	Product Data Samples Certification	Each Type Sealants Product Test Reports
081113 - Steel Door and Frames	Shop Drawings Schedules	Frames
081416 - Flush Wood Doors	Product Data Shop Drawings Schedule	Wood Doors
083323 – Overhead Doors	Product Data	Doors
087100 - Finish Hardware	Schedule Product Hardware	Hardware
088000 - Glass and Glazing	Product Data Samples	Glass/Glazing Materials Glass
088000 - Glass and Glazing	Product Data Samples	Glass/Glazing Materials Glass
093000 - Tile	Product Data Samples	Tile and Grout Tile
095100 - Acoustical Ceilings	Product Data Samples	Panel/Suspension System
095100 - Acoustical Ceilings	Product Data Samples	Panel/Suspension System
096513 - Resilient Flooring	Product Data Sample Maintenance Instructions Replacement Material	Tile and Base

SUBMITTAL SCHEDULE		
SECTION	**TYPE OF SUBMITTAL**	**DESCRIPTION**
096816 - Carpeting	Product Data Samples Seaming Plan	Each Carpet Type Each Carpet Type All Carpet Spaces
099100 - Painting	Product Data Samples Mock-Up	Paint Paint Field Application
099100 - Painting	Product Data Samples Mock-Up	Paint Paint Field Application
101000 - Markerboards, Chalkboards, Tackboards	Product Data Samples	Each Type of Visual Board Tackboard Fabric
102800 - Toilet Partitions	Product Data Shop Drawings Samples	Toilet Partitions Fabrication of Partitions Color and Solid Plastic Selection
102800 - Toilet Partitions	Product Data Shop Drawings Samples	Toilet Partitions Fabrication of Partitions Color and Solid Plastic Selection
101440 - Signage	Product Data Schedule Shop Drawings	Signage Sign Layout
105050 - Metal Lockers	Product Data Shop Drawings Samples	Lockers Layout and Details Color and Finish Selection
102800 - Toilet and Bath Accessories	Product Data	Accessories
109900 - Miscellaneous Specialties	Product Data Shop Drawings	Each Item Installation Instructions Fabrication Details (where required)
111320 - Project Screens and T.V. Mounting Brackets	Product Data Shop Drawings	Screens and Monitor Mounts Installation Details
111320 - Project Screens and T.V. Mounting Brackets	Product Data Shop Drawings	Screens and Monitor Mounts Installation Details
15010 - Mechanical General Provisions		
15400 - Plumbing		
16010 - Electrical General Provisions		

NOTE: Additional Submittals may be requested by the Architect/Engineer.

END OF SECTION 013300

SECTION 014000 - QUALITY CONTROL SERVICES

PART 1 - GENERAL

1.01 GENERAL: This Section specifies requirements for quality control services. Quality control services include inspections and tests performed by independent agencies, governing authorities, as well as the Contractor. Attachments one (1) and two (2) lists the Owner's additional requirements.

1.02 CONTRACTOR RESPONSIBILITIES: Provide inspections and tests specified or required by governing authorities, except where they are the Owner's responsibility, or are provided by another entity; services include those specified to be performed by an independent agency not by the Contractor. Costs are included in the Contract.

The Contractor shall engage and pay for services of an independent agency, acceptable to the Architect/Engineer to perform inspections and tests specified as Quality Control services.

Retesting: The Contractor is responsible for retesting where results prove unsatisfactory and do not indicate compliance with Contract Documents, regardless of whether the original test was the Contractor's responsibility.

Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

Associated Services: The Contractor shall cooperate with agencies performing inspections or tests and provide auxiliary services as requested. Notify the agency in advance of operations to permit assignment of personnel. Auxiliary services include but are not limited to:

Provide access to the Work and furnish incidental labor and facilities necessary to facilitate inspections and tests.

Take representative samples of materials that require testing or assist the agency in taking samples.

Provide facilities for storage and curing of samples, and deliver samples to testing laboratories. Provide a preliminary design mix proposed for use for material mixes that require control by the testing agency.

Provide security and protection of samples and test equipment at the Project site.

1.03 DUTIES OF THE TESTING AGENCY: The agency engaged to perform inspections and testing of materials and construction shall cooperate with the Architect and Contractor in performance of its duties, and provide qualified personnel to perform inspections and tests.

The agency shall notify the Architect and Contractor promptly of deficiencies observed during performance of its services.

The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.

1.04 COORDINATION: The Contractor and each agency engaged to perform inspections and tests shall coordinate the sequence of activities to accommodate services with a minimum of delay. The Contractor and each agency shall coordinate activities to avoid removing and replacing construction to accommodate inspections and tests.

The Contractor is responsible for scheduling inspections, tests, taking samples and similar activities.

1.05 SUBMITTALS: The testing agency shall submit a certified written report of each inspection and test to the Architect, in duplicate, unless the Contractor is responsible for the service. If the Contractor is responsible, submit a certified written report of each inspection and test through the Contractor, in triplicate, who shall send two (2) copies to the Architect.

Submit additional copies of each report to the governing authority, when the authority so directs.

Report Data: Written reports of each inspection or test shall include, but not be limited to:

Date of issue.
Project title and number.
Name, address and telephone number of testing agency.
Testing agency qualifications.
Dates and locations of samples and tests or inspections.
Names of individuals making the inspection or test.
Designation of the Work and test method including applicable industry standards and/or codes.
Identification of product and Specification Section.
Complete inspection or test data.
Test results and an interpretations of test results.
Ambient conditions at the time of sample-taking and testing.
Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
Name and signature of laboratory inspector or person reviewing results.
Recommendations on retesting.

1.06 QUALIFICATION FOR SERVICE AGENCIES: Engage inspection and testing agencies which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and specialize in the types of inspections and tests to be performed.

Each inspection and testing agency engaged shall be authorized to operate in the State in which the Project is located.

1.07 REPAIR AND PROTECTION: Upon completion of inspection and testing repair damaged construction and restore substrates and finishes to eliminate deficiencies. Comply with requirements for "Cutting and Patching."

Protect construction exposed by or for quality control service activities, and protect repaired construction.

The Contractor is responsible for repair and protection regardless of the assignment of responsibility for inspection and testing.

END OF SECTION 014000

SECTION 014200 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 DEFINITIONS: Basic Contract definitions are included in the General Conditions.

A. Indicated refers to graphic representations, notes or schedules on Drawings, or Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference.

B. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Architect", "requested by the Architect", and similar phrases. No implied meaning shall be interpreted to extend the Architect's responsibility into the Contractor's supervision of construction.

C. Approve, used in conjunction with action on submittals, applications, and requests, is limited to the Architect's duties and responsibilities stated in General and Supplementary Conditions. Approval shall not release the Contractor from responsibility to fulfill Contract requirements.

D. Regulation includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, and rules, conventions and agreements within the construction industry that control performance of the Work, whether lawfully imposed by authorities having jurisdiction or not.

E. Furnish means "supply and deliver, ready for unloading, unpacking, assembly, installation, and similar operations."

F. Install describes operations at the site including "unloading, unpacking, assembly, erection, anchoring, applying, working to dimension, protecting, cleaning and similar operations."

G. Provide means "furnish and install, complete and ready for use."

H. Installer: "Installer" is the Contractor or an entity engaged by the Contractor, as an employee, subcontractor or sub- subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform. The term "experienced," when used with "Installer" means having a minimum of 5 previous Projects similar in size to this Project, and familiar with the precautions required, and with requirements of the authority having jurisdiction.

I. Project Site is the space available for construction activities, either exclusively or with others performing other construction on the Project. The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built.

J. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.

1.02 SPECIFICATION FORMAT: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 16-Division format and MASTERFORMAT numbering system. Language used in the Specifications is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the context so indicates.

Imperative language is used generally. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text subjective language is used to describe responsibilities which must be fulfilled indirectly by the Contractor, or by others when so noted. The

words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.

1.03 ASSIGNMENT OF SPECIALISTS: Certain construction activities shall be performed by specialists, recognized experts in the operations to be performed. Specialists must be engaged for those activities, and assignments are requirements over which the Contractor has no option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.

1.04 DRAWING SYMBOLS: Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., eighth edition.

1.05 MECHANICAL/ELECTRICAL DRAWINGS: Graphic symbols for mechanical and electrical Drawings are defined in a graphic symbol legend on the Construction Documents and are aligned with symbols recommended by ASHRAE. Where appropriate, they are supplemented by symbols recommended by technical associations. Refer instances of uncertainty to the Architect for clarification before proceeding.

1.06 APPLICABILITY OF STANDARDS: Except where the Contract Documents include more stringent requirements, applicable industry standards have the same force and effect as if bound or copied into Contract Documents. Such standards are part of the Contract Documents by reference. Individual Sections indicate standards the Contractor must keep available at the Project Site.

1.07 PUBLICATION DATES: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of Contract Documents.

Updated Standards: Submit a Change Order proposal where an applicable standard has been revised and reissued after the date of the Contract Documents and before performance of Work. The Architect will decide whether to issue a Change Order to proceed with the updated standard.

1.08 CONFLICTING REQUIREMENTS: Where compliance with two or more standards that establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced. Refer uncertainties as to which quality level is more stringent to the Architect for a decision before proceeding.

Minimum Quantities or Quality Levels: The quantity or quality shown or specified is the minimum to be provided or performed. Indicated values are minimum or maximum values, as appropriate for the requirements. Refer instances of uncertainty to the Architect for decision before proceeding.

1.09 COPIES OF STANDARDS: Each entity engaged on the Project shall be familiar with standards applicable to that activity. Copies of applicable standards are not bound with the Contract Documents.

Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

Although copies of standards needed for enforcement of requirements may be part of submittals, the Architect reserves the right to require submittal of additional copies for enforcement of requirements.

1.10 ABBREVIATIONS AND NAMES: Where acronyms or abbreviations are used in the Specifications or other Contract Documents they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

1.11 PERMITS, LICENSES, AND CERTIFICATES: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

END OF SECTION 014200

PAGE LEFT BLANK INTENTIONALLY

SECTION 015000 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.02 SUMMARY: This Section specifies temporary services and facilities, including utilities, construction and support facilities, security and protection. Provide facilities ready for use. Maintain, expand and modify as needed. Remove when no longer needed, or replaced by permanent facilities.

Temporary facilities required include but are not limited to water service and distribution, temporary electric power and light, storage sheds, sanitary facilities and temporary enclosures, barricades, warning signs, lights and environmental protection.

1.03 USE CHARGES: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect, and will not be accepted as a basis of claims for a Change Order.

1.04 REGULATIONS: Comply with all applicable local, state, and federal laws and regulations.

1.05 STANDARDS: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities@ and OSHA.

A. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared by AGC and ASC.

B. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).

1.06 INSPECTIONS: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.07 CONDITIONS OF USE: Keep facilities clean and neat. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload, or permit facilities to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

1.08 MATERIALS AND EQUIPMENT: Provide new materials and equipment; if acceptable to the Architect, undamaged previously used materials and equipment in serviceable condition may be used. Provide materials and equipment suitable for the use intended.

A. Tarpaulins: Waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.

B. Temporary / Construction Fencing: 11-gage, galvanized 2-inch, chain link fabric fencing 6-feet high with galvanized steel pipe posts, 1-1/2" I.D. for line posts and 2-1/2" I.D. for corner posts.

1.09 TEMPORARY UTILITY INSTALLATION: Engage the local utility company to install temporary service or connect to existing service. Arrange for a time when service can be interrupted to make connections. Provide adequate capacity at each stage of construction. Combined use of temporary and existing power and water is anticipated for this project.

A. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction. Sterilize water piping prior to use.

B. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics. Include meters, transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switch gear. Install service underground, if possible.

1. Power Distribution System: Install wiring overhead, and rise vertically where least exposed to damage.

2. Electrical Outlets: Provide properly configured NEMA polarized outlets. Provide outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.

3. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to traffic.

C. Lighting: Provide temporary lighting with local switching to fulfill security requirements and provide illumination for construction operations and traffic conditions.

1. Lamps and Light Fixtures: Provide general service incandescent lamps. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.

D. Telephones: Provide temporary telephone service for personnel engaged in construction. Post a list of important telephone numbers.

E. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent. If sewers are not available or cannot be used, provide drainage ditches, or similar facilities.

Filter out construction debris and other contaminants that might clog sewers or pollute waterways before discharge. Provide earthen embankments and similar barriers in and around excavations and subgrade construction to prevent flooding by runoff of storm water from heavy rains. **Comply with all City and County requirements for storm water runoff.**

1.10 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION: Locate for easy access. Maintain facilities until Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, if acceptable to the Owner.

A. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads where they do not interfere with construction activities.
Dust Control: If, in the opinion of the Owner or Architect it is necessary to control dust during construction period, the Contractor shall furnish and spread water or calcium chloride at points where dust is a nuisance or as directed by the Architect, at no additional cost to the Owner.

B. Field Offices: Provide field offices of size required to accommodate personnel, including telephone and fax line. In addition provide a 3' x 5' desk, table and stool for use by the Architect.

Field office is to be provided with air conditioning. Keep clean and orderly for use for small progress meetings.

C. Storage and Fabrication Sheds: Install sheds, equipped to accommodate materials and/or existing equipment involved. Sheds may be open shelters.

D. Sanitary facilities include temporary toilets and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures. Install where facilities will best serve the Project. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.

E. Toilets: Install self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material. Use of pit-type privies will not be permitted. Under no circumstances will construction personnel use existing toilet facilities.

F. Drinking Water Facilities: Provide containerized tap-dispenser type drinking water units.

G. Dewatering Facilities and Drains: For temporary drainage and dewatering operations not associated with construction, comply with requirements of applicable Division-2 Sections. Where feasible, utilize the same facilities. Maintain excavations and construction free of water.

H. Temporary Enclosures: Provide temporary enclosure for protection of construction from exposure, foul weather, other construction operations and similar activities. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions.

Install tarpaulins securely, with incombustible framing. Close openings through floor or roof decks and horizontal surfaces with load-bearing construction.

I. Collection and Disposal of Waste: Collect waste daily. Comply with NFPA 241 for removal of combustible waste. Enforce requirements strictly. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose in a lawful manner.

J. Project Identification and Temporary Signs: Prepare project identification signs on grade B-B High Density Overlay Plywood; install where indicated by Architect. Support on framing of preservative treated wood or steel. Engage an experienced sign painter to apply graphics. Refer to project identification sign drawing at end of this section (Attachment 01500-1).

1.11 SECURITY AND PROTECTION FACILITIES INSTALLATION: Except for use of permanent fire protection as soon as available, do not change from use of temporary security and protection facilities to permanent facilities until Substantial Completion.

A. Fire Protection: Until fire protection is supplied by permanent facilities, install and maintain temporary fire protection of types needed to protect against predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations." Consideration should be given to existing fire hydrant locations.

B. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers. Locate fire extinguishers where effective for the intended purpose.

Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire

protection facilities, and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.

Store combustible materials in containers in fire-safe locations.

Provide supervision of welding operations, combustion type temporary heating units, and sources of fire ignition.

C. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of barricades. Paint appropriate warning signs to inform personnel and the public of the hazard being protected against. Where needed provide lighting, including flashing lights. Temporary, portable or metal barricades and structures shall be constructed over all open trench areas intersecting student walkways. Walkway structures over trenches shall be of sturdy construction with handrails and be handicap accessible.

D. Security Enclosure and Lockup: Install temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism and theft. Where materials and equipment must be stored, provide a secure lockup.

E. Enclosure Fence: When excavation begins, install an enclosure fence with lockable entrance gates where indicated, or if not indicated, enclose the entire site or the portion sufficient to accommodate operations. Provide open-mesh, chain-link fencing with posts set in a compacted mixture of gravel and earth.

F. Environmental Protection: Operate temporary facilities and conduct construction by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted. Restrict use of noise making tools and equipment to hours that will minimize complaints.

1.12 OPERATION: Enforce strict discipline in use of temporary facilities. Limit availability to intended use to minimize abuse. Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and the elements.

Maintain operation of enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis to achieve indicated results and to avoid damage.

Prevent piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

1.13 TERMINATION AND REMOVAL: Remove each facility when the need has ended, or replaced by a permanent facility, or no later than Substantial Completion. Complete or restore construction delayed because of interference with the facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

Temporary facilities are property of the Contractor.

At Substantial Completion, renovate permanent facilities used during the construction period, including but not limited to:

Replace air filters and clean inside of ductwork and housings.
Replace worn parts and parts subject to unusual operating conditions.
Replace burned out lamps.

END OF SECTION 015000

PAGE LEFT BLANK INTENTIONALLY

SECTION 015500 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 DEFINITIONS

A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

B. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

C. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

D. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

E. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.02 QUALITY ASSURANCE

A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

D. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.

E. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:

Name of product and manufacturer.

Model and serial number.

Capacity.

Speed.

Ratings.

1.03 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.

B. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses; and to prevent overcrowding of construction spaces.

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

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

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

F. All new installed materials shall be sealed from moisture penetration at the end of each day.

PART 2 - PRODUCTS

2.01 PRODUCT SELECTION

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation. Discontinued items will not be accepted.

1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.

2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:

1. Semiproprietary Specification Requirements: Where Specifications name two or more products or manufacturers, provide one of the products indicated.

Where Specifications specify products or manufacturers by name, accompanied by the term "**or equal**" or "**or approved equal**", comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

2. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.

3. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.

4. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.

5. Visual Matching: Where Specifications require matching an established Sample (match existing), the Architect's decision will be final on whether a proposed product matches satisfactorily.

   Where no product is available within the specified category, matches satisfactorily and complies with other specified requirements; comply with provisions of the Contract Documents concerning "substitutions" (Section 01631 - Product Substitutions) for selection of a matching product in another product category.

6. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with specified requirements. The Architect will select the color, pattern, and texture from the product line selected. Any selections within the product line which are unavailable, no longer make or superseded by another should be so marked.

PART 3 - EXECUTION

3.01 INSTALLATION OF PRODUCTS

A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 015500

PAGE LEFT BLANK INTENTIONALLY

SECTION 017700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 SUBSTANTIAL COMPLETION: (See Section 00700 - General Conditions, Section 9.8).Before requesting inspection for certification of Substantial Completion, complete the following:

A. Change-over permanent locks and transmit keys to the Owner.

B. 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.

C. Complete final clean up. Touch-up and repair and restore marred exposed finishes.

1.02 INSPECTION PROCEDURES: When the Contractor considers the work substantially complete, he shall prepare and submit a comprehensive list of items to be completed and/or corrected to the Architect. The Contractor shall proceed to promptly complete and/or correct all items on the list.

A. Upon receipt of Contractor's list, the Architect will make an inspection or inform the Contractor of work to be completed before an inspection will be conducted.

B. When the work is substantially complete, the Architect will prepare the Certificate of Substantial Completion which shall establish the date of Substantial Completion.

C. Results of the completed inspection will form the basis of requirements for final acceptance, **including any items discovered at a later date considered necessary to be completed for final**.

1.03 FINAL ACCEPTANCE: (See General Conditions Section 9.10). Before requesting inspection for certification of final acceptance and final payment, complete the following:

A. Submit a copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.

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

C. Submit record drawings, maintenance manuals, damage or settlement survey, and similar record information.

D. Refer to Section 012900 - Application For Payment - Final Payment Application.

E. Provide the Architect with “Final Statement of Compliance”, for the Owner.

1.04 REINSPECTION PROCEDURE (if required): The Architect will re-inspect 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.

A. Upon completion of re-inspection, the Architect will then 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. If necessary, re-inspection will be repeated.

1.05 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 where installation varies from that shown originally. 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.

A. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover.

B. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and lost. Provide access to Project Record Documents for Architect=s reference during normal working hours.

B. Upon completion of the Work, submit Record Drawings (red-line field as-builts) to the Architect for Owner’s records.

1.06 PROJECT RECORD SPECIFICATIONS: Maintain one copy of the Project Manual, including addenda. Mark-up to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract 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.

A. Upon completion of the Work, submit record Drawings and Specifications to the Architect for the Owner's records.

1.07 PROJECT AS-BUILT DRAWINGS: The Contractor shall, at his own expense, hire Architect of Record (CRA) to prepare as-built drawings. The Contractor shall provide to the Architect record drawings and record specifications. The Contractor is solely responsible for the content of the record drawings and the as-built documents. As-built drawings shall comply with the following:

A. Show the actual locations of all components, including depth below grade, along with any changes and/or modifications to the Contract Drawings.

B. All dimensions and elevations, including invert elevations, shall be verified by field measurements.

C. The Contractor is cautioned to make all necessary measurements and elevations during installation to accurately locate all concealed items.

D. As-Built Survey: Contractor shall provide signed and sealed As-Built Survey of existing grades and structures as required by authorities having jurisdictions.

1.08 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:

Emergency instructions.
Copies of warranties.
Recommended "turn around" cycles.
Shop Drawings and Product Data.
Spare parts list.
Wiring diagrams.
Inspection procedures.
Fixture lamping schedule.

1.09 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:

Maintenance manuals.	Spar parts and materials.
Tools.	Lubricants.
Control sequences.	Hazards.
Warranties and bonds.	Maintenance agreements and similar continuing commitments.

As part of instruction for operating equipment, demonstrate the following procedures:

Start-up and shutdown.	Emergency operations.
Noise and vibration adjustments.	Safety procedures.

All operation and training sessions shall be video taped and two (2) copies provided to Owner. Verify with Owner the appropriate format of taping that should be used.

1.10 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, as a minimum before requesting inspection for certification of Substantial Completion:

A. Remove labels that are not permanent labels.

B. Clean transparent materials. Remove glazing compound. Replace chipped or broken glass.

C. Clean exposed hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean.

D. Vacuum carpeted surfaces.

E. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

F. Clean the site of rubbish, litter and other foreign substances. Sweep paved areas; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth even-textured surface.

1.11 REMOVAL OF PROTECTION: Remove temporary protection and facilities.

1.12 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.

END OF SECTION 017700

PAGE LEFT BLANK INTENTIONALLY

SECTION 017800 - WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 STANDARD PRODUCT WARRANTIES are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner. Note: All Standard Product Warranties are to be provided.

1.02 SPECIAL WARRANTIES are written warranties required by or incorporated in Contract Documents, to extend time limits provided by standard warranties or to provide greater rights for the Owner. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.

A. Requirements for warranties for products and installations that are specified to be warranted, are included in the individual Sections of Divisions-2 through -16.

1.03 DISCLAIMERS AND LIMITATIONS: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and Subcontractors required to countersign special warranties with the Contractor.

1.04 RELATED DAMAGES AND LOSSES: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

1.05 REINSTATEMENT OF WARRANTY: When Work covered by a warranty has failed and been corrected, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

1.06 REPLACEMENT COST: On determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through part of its useful service life.

1.07 OWNER'S RECOURSE: Written warranties made to the Owner are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

A. Rejection of Warranties: The Owner reserves the right to reject warranties and limit selections to products with warranties not in conflict with requirements of the Contract Documents. The Owner reserves the right to refuse to accept Work where a special warranty, or similar commitment is required, until evidence is presented that entities required to countersign commitments are willing to do so.

1.08 SUBMIT WRITTEN WARRANTIES to the Architect prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion, submit written warranties on the Architect's request.

A. When a designated portion of the Work is completed and occupied or used, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen days of completion of that designated portion of the Work.

B. When a special warranty is to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner

through the Architect for approval prior to final execution.

C. Refer to individual Sections of Divisions-2 through -16 for specific content, and particular requirements for submittal of special warranties.

D. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.

E. Provide heavy paper dividers with celluloid covered tabs for each warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.

F. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the Project title or name, and the name of the Contractor.

G. When operating and maintenance manuals are required for warranted construction, provide additional copies of each warranty, as necessary, for inclusion in each required manual.

END OF SECTION 017800

SECTION 02 02 05 - DEMOLITION

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The work includes demolition and removal of all civil and site related materials and debris within the limits of construction. Materials resulting from demolition work shall become the property of the Contractor and shall be removed from the limits of the property and disposed of in a manner which is legal and in keeping with local codes. Unless owner has requested to salvage specific material or items. Contractor is required to coordinate with all Utility Agencies Owners (UA)) for the removal and or relocation of infrastructure to ensure existing utilities are abandoned or relocated in accordance UAO's design standards.

1.2 PROTECTION

A. Protect contiguous and nearby structures from danger by temporary covers, shoring, bracing, and supports. Repair or replace items damaged during the performance of the work.

B. Where pedestrian or vehicle driver safety is endangered in the area of the demolition and removal work, erect barricades with flashing lights. Provide flagmen for traffic control, if required.

1.3 SUBMITTAL

A. The Contractor shall prepare a detailed description and schedule of his proposed procedure to accomplish the demolition and removal of demolished materials and debris and submit to the Owner for approval before work is started. The procedures shall provide for careful removal and disposition of material specified to be salvaged, coordination with other work in progress and a disconnection schedule of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operation.

1.4 EXPLOSIVE

A. Use of explosives will not be permitted.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

3.1 PREPARATION

A. Disconnection of utility services as required, shall be coordinated with the Utility Agency Owner responsible for the service before the start of work.

3.2 DEMOLITION

A. The entire structure shall be demolished including the foundation, utilities, and basement.

B. When utility lines are encountered, Contractor shall contact utility owner to arrange for removal if necessary.

C. Salvage materials shall be removed from the owner's property daily. Materials of value shall not be sold at this site. All materials shall be fully and completely removed, no materials shall be buried at the site.

D. Debris and rubbish shall be removed and transported in a manner that will prevent spillage on streets or adjacent areas. All regulations and fees for disposal are the responsibility of the Contractor.

3.3 RESTORATION OF SITE

A. After the demolition is complete. The Contractor shall insure all trash and debris resulting from the demolition activities have been removed and the area thoroughly policed for litter.

B. The construction shall restore all damaged areas to the original site conditions. If the Owner does request that additional fill dirt be brought in, then the Contractor shall bring in the required quantity of select fill dirt and compact and test the backfill in accordance with Section 310220. The area shall then be graded smooth and level and stabilized in accordance with the construction documents.

END OF SECTION 020205

SECTION 023000 - GEOTECHNICAL DATA

PART 1 - GENERAL

1.01 Subsurface soil explorations were conducted at the site by:

Southern Earth Sciences, Inc.

3642 Peddie Dr.
Tallahassee, Fl. 32303
(850) 576-4652

The results are issued in a report(s) entitled,
"Subsurface Investigation and Geotechnical Evaluation Report" dated December 27,2024.
A copy of the 47-page report is included herein.

1.02 INTERPRETATION:

Geotechnical Data is provided for the information and the convenience of the Bidders. The Owner and the Architect/Engineer disclaim any responsibility for the accuracy, true location and extent of the Geotechnical Data that has been prepared by others. They further disclaim responsibility for interpretation of that data by Bidders, as in projecting soil-bearing values, rock profiles, soil stability and the presence, level and extent of underground water.

The FINDINGS AND RECOMMENDATIONS and the STRUCTURAL RECOMMENDATIONS in the report are to be utilized as the basis of design for earthwork under buildings and structures. If any design parameters conflict, between this report and the specifications, the more stringent shall be followed.

END OF SECTION 023000

PAGE LEFT BLANK INTENTIONALLY

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing



Subsurface Investigation and Geotechnical Evaluation Report

GADSDEN COUNTY EMERGENCY MANAGEMENT SERVICES (EMS) FACILITY

JOE ADAMS ROAD, QUINCY, FLORIDA

CLEMONS RUTHERFORD & ASSOCIATES, INC.

SES Project No: T24-350
December 27, 2024

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

TALLAHASSEE OFFICE
1246 Timberlane Road
Tallahassee, FL 32312
Tel: (850) 576-4652
www.soearth.com

Clemons Rutherford & Associates, Inc.
2027 Thomasville Road
Tallahassee, Florida 32303

December 27, 2024
File No.: T24-350

ATTENTION: Mr. Brian Yarbrough

SUBJECT: Report of Subsurface Investigation and Geotechnical Evaluation
Gadsden County Emergency Management Services (EMS) Facility
Joe Adams Road, Quincy, Gadsden Co., Florida

Dear Mr. Yarbrough:

As requested, Southern Earth Sciences, Inc. (SES) has completed the geotechnical investigation for the above referenced project in general accordance with Prop. No.: XT24-284 dated August 2, 2024, and email correspondence. The signed Work Authorization Sheet was provided on November 4, 2024. This report describes our field-testing techniques, includes data obtained during the investigation, and presents our soil-related design and construction recommendations for site preparation and foundation/pavement/stormwater pond design.

We appreciate the opportunity to be of service to you on this project. Should additional information be required, please do not hesitate to contact us.

Sincerely,

SOUTHERN EARTH SCIENCES, INC.

Colin Curtis

Colin Curtis, E.I.
Geotechnical Project Manager



12/30/2024

Mark E. Wilson, P.E.
Eng. Reg. No.: 47707
State of Florida

This item has been digitally signed and sealed by Mark E. Wilson, P.E. (FL Eng. License No.: 47707) using a Digital Signature. Printed copies of this document are not considered signed and sealed and the authentication code must be verified on any electronic copies.

Table of Contents

SITE AND PROJECT INFORMATION 3
FIELD INVESTIGATIVE PROCEDURES 3
LABORATORY TESTING PROCEDURES 4
SUBSURFACE CONDITIONS 4
COHESIVE SOIL NOTES 6
SITE PREPARATION RECOMMENDATIONS 7
FOUNDATION RECOMMENDATIONS 7
ASPHALTIC-CONCRETE PAVEMENT RECOMMENDATIONS 8
SWMF CONDITIONS 10
ADDITIONAL TESTING 11
GENERAL COMMENTS 11

Appendices

Appendix A – Plans
Project Site Location Plan
Test Location Plans

Appendix B – Subsurface Diagram & Boring Log Sheets

Appendix C – NRCS Custom Soil Resource Report

Appendix D – Double Ring Infiltrometer Test Report

Appendix E – Important Information about the Geotechnical Report

SITE AND PROJECT INFORMATION

The project site is located off Joe Adams Road in the northwest portion of parcel ID: 3-24-2N-4W-0000-00410-0000 in Quincy, Gadsden County, Florida. The **Project Site Location Plan** included in **Appendix A** shows the project site location and approximate property boundaries. At the time of our investigation, the project site was mostly a grassy field, but the northwest portion had previously been used as an asphalt millings stockpile area, with remnants still scattered around. Additionally, there were some trees and brush in the southern portion.

Southern Earth Sciences, Inc. (SES), understands the intent of this project is to develop the above referenced site as an EMS facility for Gadsden County. Site improvements will include constructing an approximately 13,000 ft^2 single-story pre-engineered metal building (PEMB), with asphalt pavement for both parking and an extended driveway for the pull-though vehicle area and constructing a new storm water management facility (SWMF).

Grading Information

According to the topographic information gathered from Google Earth, the project site area generally slopes downward from the northeast to southwest with elevations ranging from about +253' to +244'. The elevation range within the proposed building area is only about +251' to +249'. Proposed grading information was not provided for the site improvements other than the SWMF having a proposed depth of about 4 feet below existing grade. SES assumes that the building and pavement areas will require no more than about 2 feet of cut/fill.

Structural Loading Information

Structural loading information was provided by Johnson & Associates. The maximum column loads are expected to be about 30 kips and no load-bearing walls are planned. The foundation design is likely to be controlled by uplift considerations. We request that any updated structural loading information be provided once it becomes available so SES can determine how the conclusions in this report may be affected.

FIELD INVESTIGATIVE PROCEDURES

The test locations were established using the provided plan and a handheld GPS unit with coordinates obtained from Google Earth. The **Test Location Plans** included in **Appendix A** show the approximate boring locations.

On November 14 and 15, 2024, nine (9) Standard Penetration Test (SPT) borings were performed to depths ranging from 5 to 25 feet below existing grades within the proposed building, pavement and SWMF areas. SPT boring information is in the form of SPT values and small soil samples obtained from selected depth intervals.

SPT values give a general indication of soil strength, and the samples are used for classification purposes. SPT borings were drilled in general accordance with ASTM D 1586 and test results are shown on the attachments included in **Appendix B**. The equipment and procedures used in the SPT borings are described in detail in **Appendix E**.

On December 12, 2024, one (1) Double Ring Infiltrometer (DRI) test was performed in a 4.5' deep test pit within the proposed SWMF. The test was performed in general accordance with ASTM D 3385. Test results are summarized later in this report and shown on the **Double Ring Infiltrometer Test Report** in **Appendix D.**

LABORATORY TESTING PROCEDURES

Laboratory work consisted of physical examination of soil samples obtained. Soil samples were visually classified in the laboratory in accordance with the Unified Soil Classification System (USCS) and American Association of State Highway and Transportation Officials (AASHTO) systems. Evaluations of these samples have been used to estimate soil characteristics.

Table 1 below summarizes the laboratory classification testing quantities performed. The test results are shown on the attachments included in **Appendix B** at the depths of the tested samples and on the **Double Ring Infiltrometer Test Report** in **Appendix D**. Abbreviations for the laboratory data are in parentheses.

Table 1: Summary of Soil Classification Laboratory Testing

Laboratory Test	Test Method	Number of Tests
Moisture Content (MC)	ASTM D 2216	15
Percent Passing 200 Mesh Sieve (Fines)	ASTM D 1140	15

SUBSURFACE CONDITIONS

Beneath a thin veneer of topsoil or asphalt debris from the previously mentioned stockpile, the site soils primarily consisted of 5 main strata, each with different soil characteristics. Stratum 1 consists of loose to medium dense USCS silty sands and clayey sands (AASHTO A-2-4) and was encountered from existing grades down to depths ranging from about 0.5 to 2 feet. Stratum 2 consists of loose to dense USCS clayey sands (AASHTO A-2-6) and was encountered from existing grade to depths ranging from about 5 to 20 feet below existing grades. Stratum 3 consists of loose to dense USCS clayey sands (AASHTO A-6) and was encountered from existing grade to depths ranging from about 5 to 16 feet below existing grades. Stratum 4 consists of very stiff USCS fat clays (AASHTO A-7) and was encountered at depths ranging from about 12 to

20 feet below existing grades. Stratum 5 consists of loose to medium dense USCS slightly clayey sands (ASHTO A-3 and A-2-4) and was encountered at depths ranging from 16 to 25 feet below existing grades. The table below further delineates the stratum depth ranges for each boring performed.

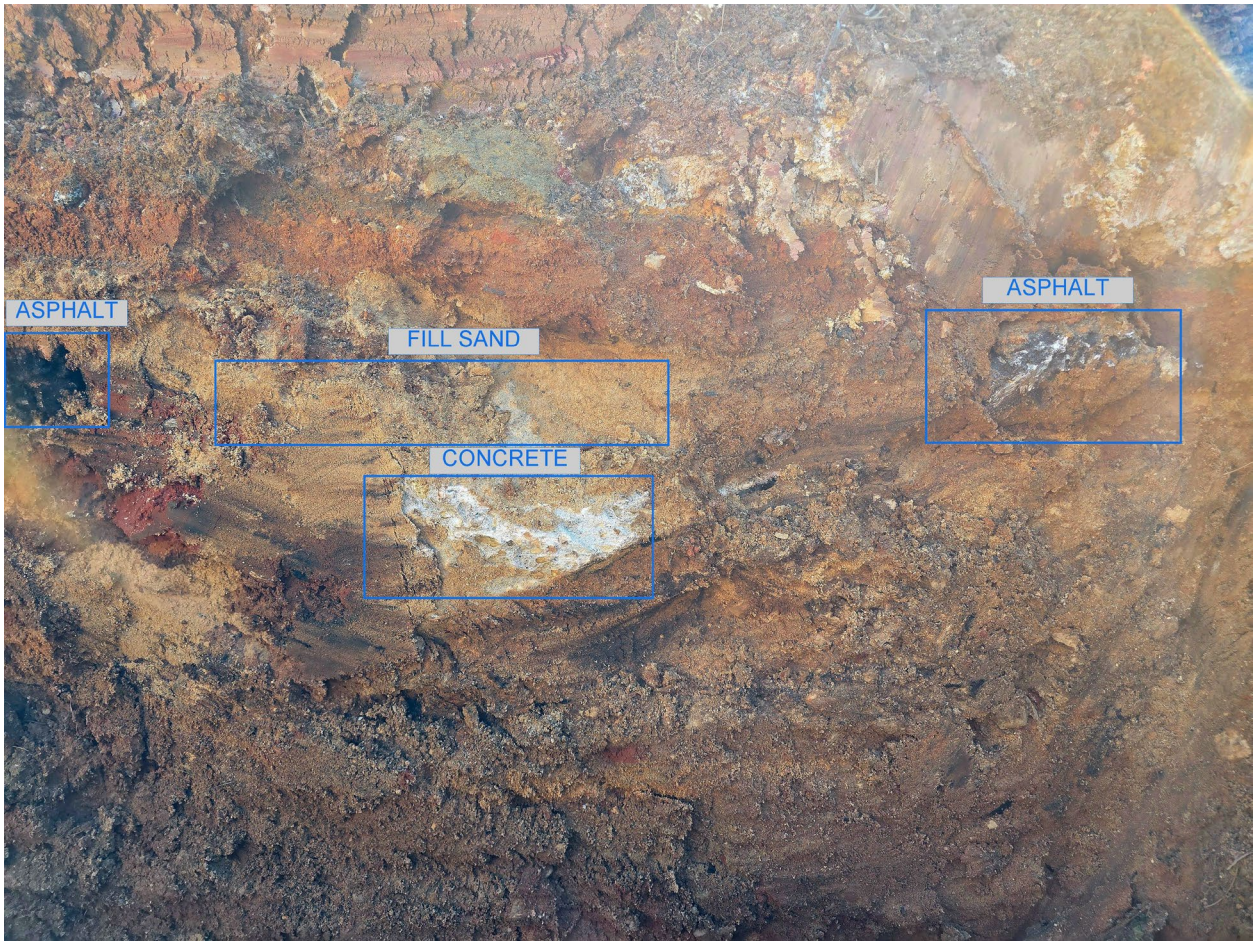
Table 2: Summary of Subsurface Soil Conditions (Roadway and Lift Station)

Starum Number	USCS/AASHTO Classification	Depth Range (Feet)								
		B-01	B-02	B-03	B-04	SW-01	R-01	R-02	R-03	R-04
1	SM or SC / (A-2-4)	0-1.5	0-1	-	0-2, 16-20	-	0-1.5	0-1	0-0.5	-
2	SC / (A-2-6)	-	1-11.5	11.5-20	2-11.5	5-8	1.5-5	1-5	-	0-5
3	SC or CL / (A-6)	1.5-16	11.5-16	0-11.5	-	0-5	-	-	0.5-5	-
4	CH / (A-7)	16-20	-	-	11.5-16	8-16	-	-	-	-
5	SP or SP-SC / (A-3 or A-2-4)	-	16-20	-	-	16-25	-	-	-	-

Note: Based on the various construction debris found in the top four feet of the soils in the proposed SWMF area (glass in the SPT boring samples, concrete and asphalt chunks in the walls of the DRI test pit, see imbedded image below), we have assumed that this area used to be utilized as a dump zone for previous projects.

Groundwater at the time of drilling was not encountered within the depth range of our test borings. Obvious seasonal high-water table (SHWT) indicators were not observed in the soil samples obtained at the time of drilling. According to the NRCS's Web Soil Survey (WSS), the project site lies on the border of Cowarts-Dothan-Fuquay complex (5 to 9 percent slopes) and Orangeburg loamy sand (2 to 5 percent slopes), which have reported SHWT depth ranges of 36 to 61 inches and greater 80 inches below natural grades, respectively. It is our opinion that the depth to the SHWT within the proposed SWMF area is greater than 20 feet below existing grade. A copy of the **Custom Soil Resource Report** is included in **Appendix C**.

Fluctuations in the water table will occur seasonally; therefore, groundwater levels should be verified prior to construction. The **Subsurface Diagram** and boring log sheets included in **Appendix B** provide a more detailed description of the site soils and groundwater depths.



COHESIVE SOIL NOTES

We caution that the site soils (beneath the thin veneer of silty sands, where present) are cohesive and, therefore, are sensitive to changes in moisture content. Excessive moisture in these soils will cause difficulty in achieving compaction which could delay the construction sequence. Therefore, we recommend that construction activities be planned such that these soils are exposed for the least possible amount of time. We also recommend that positive drainage be maintained throughout the jobsite during construction. A good construction practice would be to "seal" any soils loosened during the day's work by rolling with a rubber-tired or flat-wheel steel roller at the end of each workday. Also, as soon as possible after a rainfall event, all standing water should be removed from the construction area.

SITE PREPARATION RECOMMENDATIONS

The following site preparation procedures are based on the assumed grading and structural information presented above in this report. These procedures are considered general recommendations throughout the site, whereas specific foundation and pavement system recommendations can be found in their respective sections later in this report.

1.) Clear/grub the surface soils within the proposed site improvement areas extending at least 5 feet beyond the proposed improvement perimeters to remove all topsoil, organics, and other deleterious materials. Although not anticipated, any existing underground utilities within the proposed building area should be relocated and backfilled in accordance with the recommendations below.

2.) Perform any required cut to achieve final grades.

3.) Compact the stripped/excavated surface to a density of at least 95% of the Modified Proctor maximum dry density (AASHTO T180) to a depth of 12 inches. Based on the soil types present at the site, we recommend using either a sheepsfoot roller or heavy rubber-tired equipment for compaction.

4.) Any fill required to achieve finished grades should consist of sands containing **no more than about 12%**, by dry weight, finer than the U.S. No. 200 mesh sieve. These materials are less moisture sensitive, and easier to compact, than soils with a higher fines content. Fill soils should be compacted to a density of at least 95% of the Modified Proctor maximum dry density in lifts no more than 12 inches in loose thickness. Additional fill soil recommendations for pavement area fill soils are described in the **Pavement Recommendations** section below.

5.) Laboratory moisture-density relationships (Proctors) and in-place density (compaction) tests should be performed to verify compliance with the aforementioned compaction recommendations.

FOUNDATION RECOMMENDATIONS

Our evaluation of foundation conditions has been based on the provided structural loading and assumed grading information provided in this report as well as the subsurface data obtained during our investigation. We have used correlations previously made between standard penetration resistances and foundation stabilities observed in soil conditions similar to those encountered at this site.

It is our opinion that the proposed structure may be supported upon a monolithic or conventionally designed shallow foundation system. After the site soil conditions have been prepared as described above, the foundation system may be designed using an allowable soil bearing pressure of up to 2,500 psf. The above site/soil improvements will reduce the anticipated total and differential settlements to less than 1.0 and 0.5 inches, respectively. **Note:** Due to uplift requirements, the actual bearing pressure on the footings will likely be less than the allowable bearing pressure provided.

All footings should bear a minimum of 18 inches below outside finished grade and we recommend minimum continuous and isolated footing widths of 18 inches and 30 inches, respectively. Anticipated settlements are based on the site improvement procedures outlined above. The bottom of all footing excavations should be compacted to a depth of 12 inches until they achieve at least 95% of the Modified Proctor maximum dry density.

ASPHALTIC-CONCRETE PAVEMENT RECOMMENDATIONS

The single most destructive element the pavement will be subjected to in its design lifetime is the presence of excess moisture. Therefore, pavements should be adequately sloped, and sufficient drainage provided such that excess water can run off before it can migrate into the pavement system. Sprinkler systems, if utilized in landscaped areas, should be properly installed and aimed such that they do not continually wet the paved surfaces. In addition, at the base of sloped areas where runoff may accumulate, under-drains may be necessary.

All materials and methods of placement shall be in accordance with applicable sections of the Florida Department of Transportation's "Standard Specifications for Road and Bridge Construction", current edition.

Subgrade Recommendations

Based on the findings of our site borings, we anticipate that most of the assumed pavement subgrade soils will consist of AASHTO A-2-6 or A-6 soils. These soils are considered unsuitable for use as pavement subgrade material due to excessive plasticity and/or fines. Based on the assumption that pavement grades will not be altered significantly, listed below are two (2) recommended subgrade preparation options prior to placement of the base course and asphalt.

Over-Excavation and Replacement – Where the unsuitable AASHTO A-2-6 and A-6 soils are present, we recommend over-excavating the unsuitable soils to a depth of at least 18 inches below the bottom of the base course and replacing them with suitable AASHTO A-3 or A-2-4 soils capable of achieving an LBR value of 40 or greater. Prior to backfill placement, the over-excavated surface should be proof-rolled to identify any soft or yielding

areas which may require additional over-excavation. The backfill materials should be placed in lifts not to exceed 12 inches in loose thickness and compacted to at least 98% of the Modified Proctor (AASHTO T180) maximum dry density.

Geogrid Installation - Alternatively, the unsuitable A-2-6 or A-6 subgrade soils may remain in place if a geogrid (i.e. Tensar TriAx TX-140) is placed between the subgrade soil and the base course. This option will alleviate the need for over-excavation and replacement, add stability to the subgrade layer, provide positive separation between the subgrade and base layers, and maintain the integrity of the base course over time. We recommend a minimum geogrid overlap of at least 18 inches. Prior to placement of the geogrid, the subgrade should be proof-rolled/compacted to at least 98% of the Modified Proctor (AASHTO T-180) maximum dry density to a depth of at least 12 inches. If compaction cannot be achieved due to excess moisture, either aeration/re-compaction or over-excavation and replacement will be required. **Immediately following the geogrid placement**, the base material should be placed and compacted to achieve 98% of the Modified Proctor maximum dry density to protect the cohesive subgrade soils from excess moisture.

Base Course Recommendations

Once the subgrade soils have been prepared as described, we recommend installing a base course of crushed limerock or crushed concrete with a minimum thickness of 6 inches for standard-duty asphalt pavement sections. Heavy-duty asphalt sections should be designed with a base thickness of at least 8 inches. If the geogrid alternative above is chosen, the base thickness for both the standard-duty and heavy-duty asphalt sections should be increased by 2 inches, resulting in thicknesses of 8 inches and 10 inches, respectively. The base course should be compacted to at least 98% of the Modified Proctor maximum dry density in accordance with FDOT specifications.

Asphalt Recommendations

We recommend minimum asphalt thicknesses of 2.0 and 2.5 inches (Type SP-9.5 and/or SP-12.5) for standard-duty and heavy-duty asphalt pavement areas, respectively. It should be noted that in FDOT's Flexible Pavement Design Manual, the minimum asphalt thickness for Types SP-9.5 and SP-12.5 are 1.0 and 1.5 inches, respectively.

We anticipate that the asphalt will be placed in multiple lifts. If construction traffic is allowed on the asphalt after the first lift, we caution that localized areas may fail and require reconstruction prior to placing the final lift of asphalt. Pavement maintenance and rehabilitation, including an overlay, may be required within the life of the pavement.

SWMF CONDITIONS

As stated previously, one (1) Double Ring Infiltrometer (DRI) test was performed just below the proposed SWMF bottom elevation at a depth of about 4.5 feet below existing grade. In addition to the previously mentioned boring performed to determine the soil conditions beneath the proposed SWMF, SES also performed multiple test pits within the proposed SWMF area to help determine if the soils present were natural or imported fill (explaining the presence of construction debris present within the top 4 feet of the soil boring). We estimate that the top 3 to 4 feet of material within the proposed SWMF area is fill due to the presence of construction debris. The **Test Location Plans** included in **Appendix A** show the approximate DRI test location. The DRI and associated laboratory classification test results are summarized in the table below and included in **Appendix D**.

Table 2: Summary of DRI Testing Information

TEST ID	TEST DEPTH (FEET BELOW EXISTING GRADE)	MINIMUM INFILTRATION RATE (IN/HR)	MOISTURE CONTENT / PERCENT FINES OF SOIL AT TEST ELEVATION
DRI-01	4.5	0.2	13 / 35

Design Infiltration Rate

DRI-01, performed on a freshly exposed surface within a test pit, provided a minimum vertical saturated soil infiltration rate of 0.2 in/hr. For design purposes, we recommend applying a factor of safety of at least 2.0 to the tested rate, resulting in a design vertical infiltration rate of about 0.1 in/hr. Typically, a horizontal infiltration rate of 1.5 times the factored vertical infiltration rate is utilized in the design of SWMF's, resulting in a horizontal infiltration rate of 0.15 in/hr.

The above design infiltration rate will likely lessen over time due to clogging of the soil pores which will likely seal the pond bottom making it virtually impermeable. For this reason, we recommend over-excavating the pond bottom approximately 12 inches and backfilling with a clean sand which will reduce the effect of clogging. One option to consider to improve the infiltration of the SWMF is the use of Sand Chimneys extending down to the much sandier soils (5% to 10% fines material) found below the fat clay in the elevation range of +228' to +219'.

Note: The above discussed design vertical infiltration rate should NOT be interpreted to be the same as the drawdown rate of the proposed SWMF.

Groundwater Mounding Note

Based on the results boring SW-01, a confining layer of fat clay approximately 8 feet thick was encountered at a depth of about 4 feet below the proposed pond bottom elevation. Groundwater mounding is likely to occur above the confining layer. Therefore, a groundwater mounding analysis would be required to predict the drawdown/recovery rate of the proposed stormwater pond.

SWMF Construction Considerations

If the pond bottom is to be disturbed during construction, extreme care should be exercised to avoid compaction. Any increase in density of the existing soils will have a significant adverse impact on the infiltration rate. Construction should be planned such that the tracks / tires of earth-moving equipment do not travel on, thus compacting/sealing, the final surface. As stated above, we recommend over-excavating the pond bottom approximately 12 inches and backfilling with a clean sand which will reduce the effect of clogging.

ADDITIONAL TESTING

The effectiveness of the foundation and pavement systems, as well as the performance of the proposed SWMF, will depend significantly on the proper preparation of the site soils and construction materials. Therefore, we recommend the owner employ Southern Earth Sciences, Inc. (SES) as the testing laboratory to perform construction testing services. If SES is not employed to provide construction testing services, we cannot accept any responsibility for conditions which deviate from those described in this geotechnical report.

GENERAL COMMENTS

This report has been prepared to aid in the evaluation of this property. It is intended for use with regard to the specific project discussed herein, and any substantial changes in the locations, structural loading or proposed grades should be brought to our attention so that we may determine how such changes may affect our conclusions and recommendations.

While the soil borings performed for this project are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local variations of the subsurface material are anticipated and may be encountered. The boring logs and related information are based on the driller's logs and visual examination of selected samples in the laboratory. Delineation between soil types shown on the logs is approximate, and soil descriptions represent our interpretation of subsurface conditions at the designated soil boring locations on the particular date drilled. Please see “Important Information about Your Geotechnical Engineering Report” published by ASFE attached.

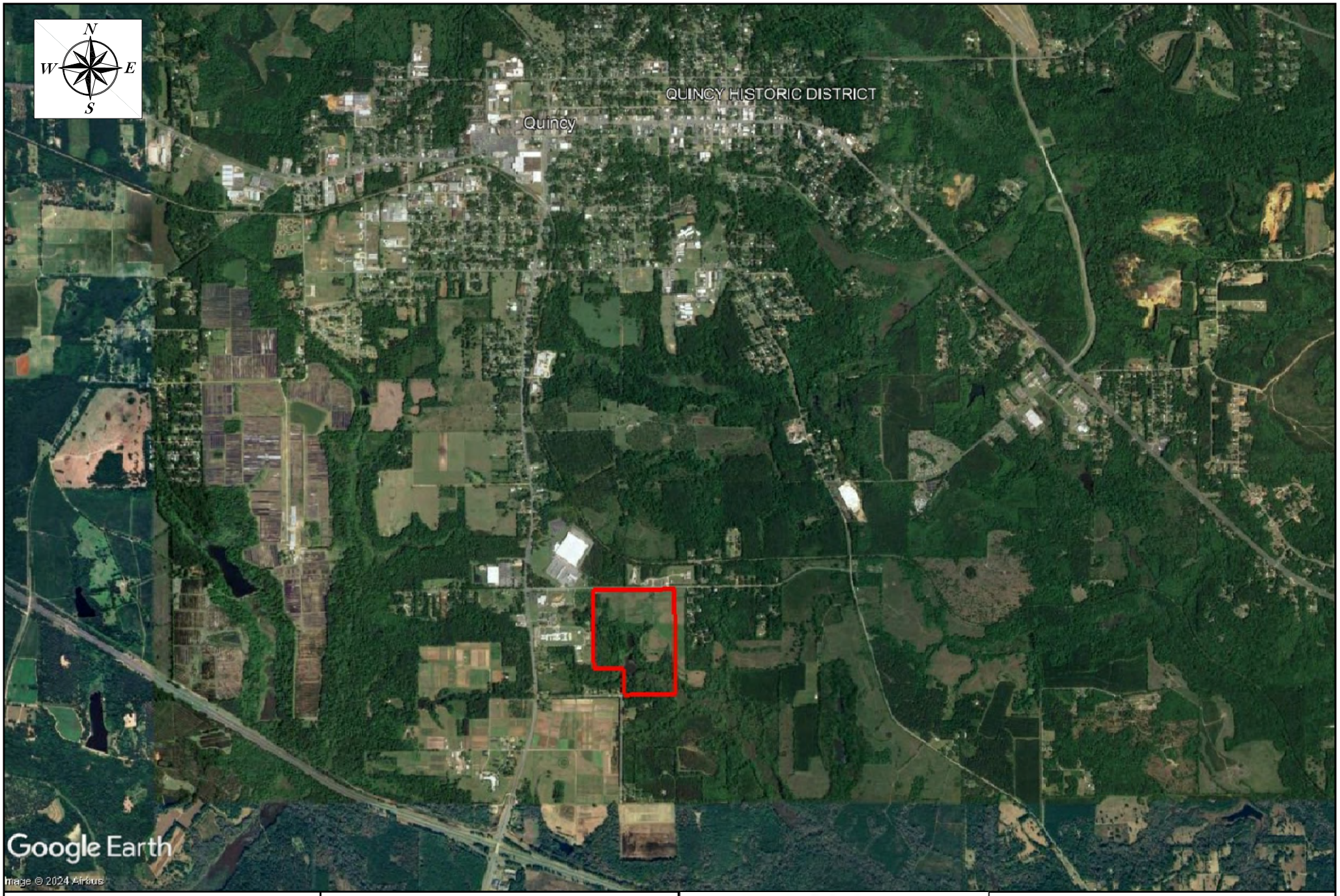
This investigation pertains to near surface soil deposits. It is not intended to include analysis / evaluation of deeper soil or rock strata where cavities and caverns may exist. This report does not address the possibility of sinkhole occurrence at the site.

The information contained in this report is for the use and benefit of the addressee identified on the first page of this report and the owner/design team/lenders associated with the project. It is not for the use or benefit of, nor may it be relied upon, by any other person or entity. The contents of this report may not be quoted in whole or in part or distributed to any person or entity other than the addressee/owner/lenders/design team without, in each case, the advance written consent of the undersigned.

END OF REPORT

APPENDIX A

PLANS



PROJECT SITE BOUNDARIES

CLEMONS RUTHERFORD & ASSOCIATES
2027 THOMASVILLE ROAD
TALLAHASSEE, FLORIDA 32308

SES SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

PROJECT SITE LOCATION PLAN
GADSDEN CO. EMS FACILITY
SES JOB #: T24-350



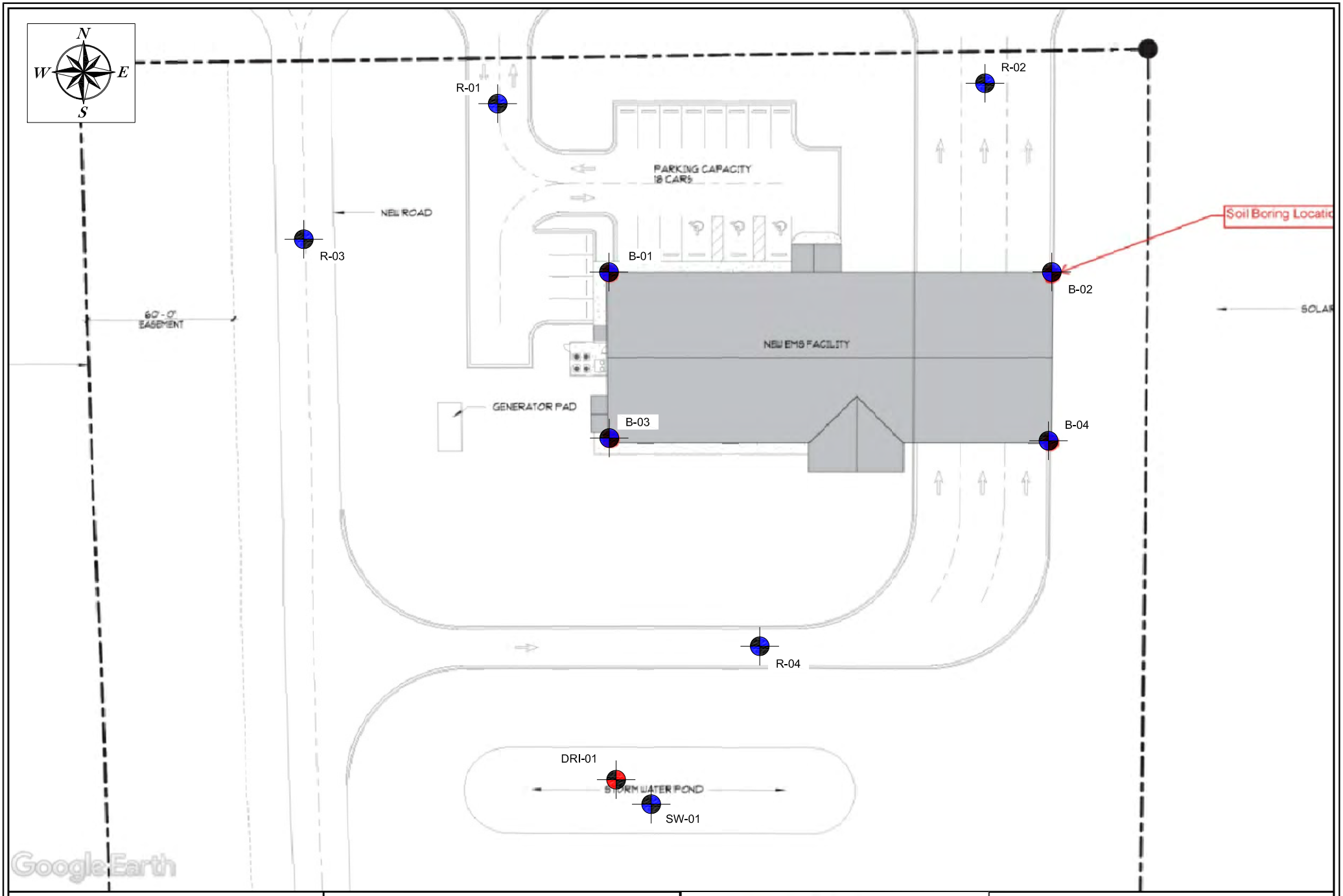
BORING LOCATION

DRI LOCATION

CLEMONS RUTHERFORD & ASSOCIATES
2027 THOMASVILLE ROAD
TALLAHASSEE, FLORIDA 32308

SES SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

TEST LOCATION PLAN - EXISTING
GADSDEN CO. EMS FACILITY
SES JOB #: T24-350



BORING LOCATION

DRI LOCATION

CLEMONS RUTHERFORD & ASSOCIATES
2027 THOMASVILLE ROAD
TALLAHASSEE, FLORIDA 32308

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

TEST LOCATION PLAN - ALTERNATIVE VIEW
GADSDEN CO. EMS FACILITY
SES JOB #: T24-350

APPENDIX B

SUBSURFACE DIAGRAM & BORING LOG SHEETS

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

SUBSURFACE DIAGRAM

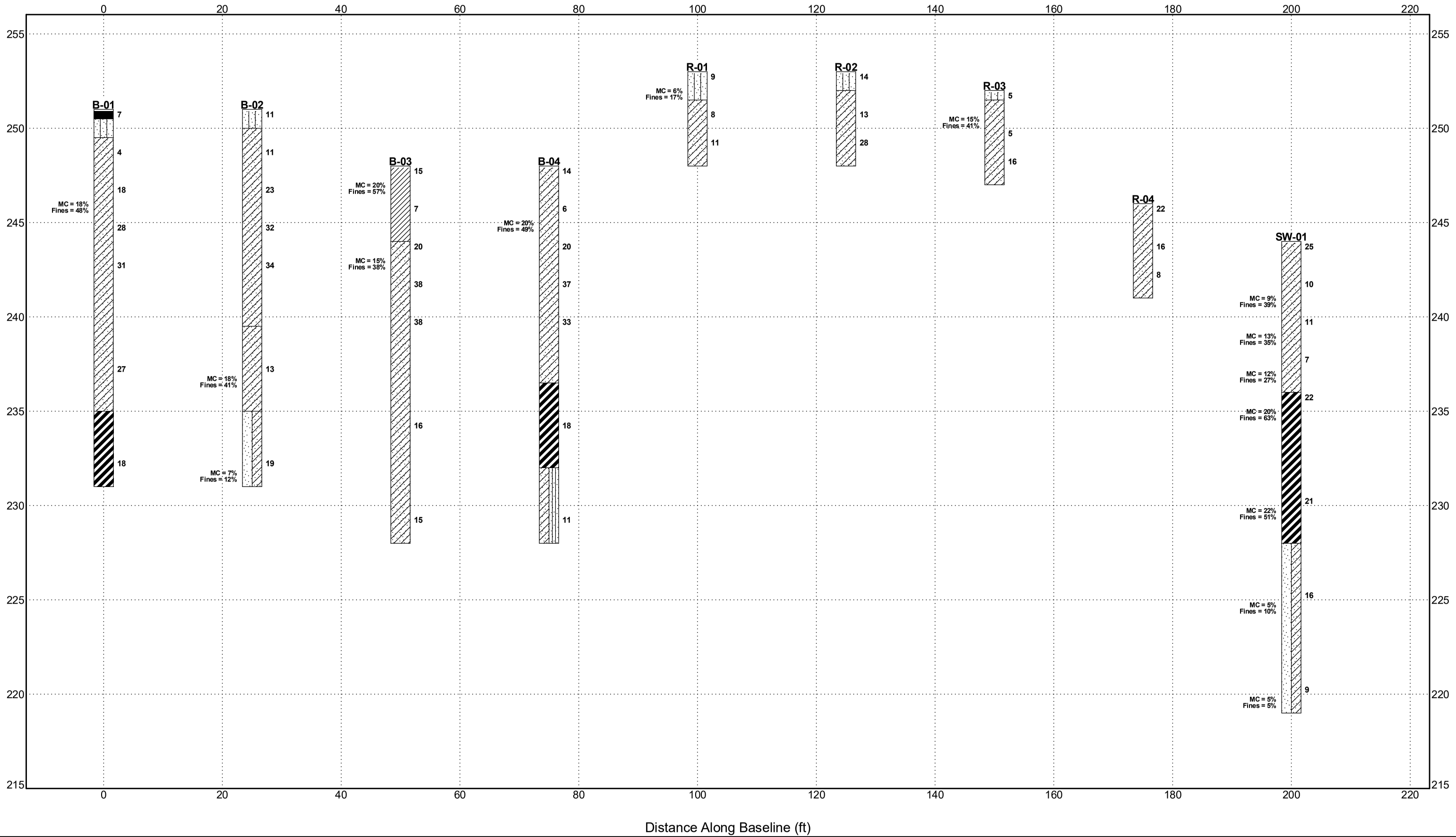
CLIENT Clemons Rutherford & Associates, Inc.

PROJECT NUMBER T24-350

PROJECT NAME Gadsden County EMS

PROJECT LOCATION Joe Adams Road, Gadsden County, Florida

Asphalt
USCS High Plasticity Clay
USCS Clayey-Silty Sand
USCS Silty Sand
USCS Poorly-graded Sand with Clay
USCS Clayey Sand
USCS Low Plasticity Clay



STRATIGRAPHY & GW - B SIZE - GINT STD US LAB.GDT - 12/18/24 08:05 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER B-01

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION 251 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'21.1"N **LONGITUDE** 84°35'12.6"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		SILTY SAND (USCS SM / AASHTO A-2-4), grayish brown, fine grained, loose	SPT 1	54	11-5-2-3 (7)							
		CLAYEY SAND (USCS SC / AASHTO A-6), brown and light gray with red, fine grained, moist, very loose to medium dense	SPT 2	63	2-2-2-2 (4)							
5			SPT 3	58	6-8-10-15 (18)			18				48
			SPT 4	71	11-13-15-20 (28)							
10			SPT 5	75	10-14-17-19 (31)							
		CLAYEY SAND (USCS SC / AASHTO A-6), brown and light gray with red and purple, fine grained, moist, medium dense										
15			SPT 6	100	10-13-14 (27)							
		FAT CLAY (USCS CH / AASHTO A-7), tan, moist, very stiff										
20			SPT 7	100	5-8-10 (18)							

Bottom of borehole at 20.0 feet.

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER B-02

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION 251 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'21.1"N **LONGITUDE** 84°35'10.4"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		SILTY SAND (USCS SM / AASHTO A-2-4), brown, fine grained, medium dense	SPT 1	79	5-8-3-3 (11)							
		CLAYEY SAND (USCS SC / AASHTO A-2-6), brown and reddish brown, fine grained, moist, loose	SPT 2	67	5-5-6-8 (11)							
5		CLAYEY SAND (USCS SC / AASHTO A-2-6), brown and light gray with red, fine grained, moist, medium dense to dense	SPT 3	100	8-10-13-15 (23)							
			SPT 4	100	17-15-17-19 (32)							
10			SPT 5	100	16-17-17-16 (34)							
		CLAYEY SAND (USCS SC / AASHTO A-6), brown and tan with light gray, fine grained, medium dense	SPT 6	100	5-6-7 (13)			18				41
15												
		POORLY GRADED SAND WITH CLAY (USCS SP-SC / AASHTO A-2-4), brown to tan, fine grained, medium dense	SPT 7	100	9-10-9 (19)			7				12
20												

Bottom of borehole at 20.0 feet.

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER B-03

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/14/24 **COMPLETED** 11/14/24
GROUND ELEVATION 248 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'20.4"N **LONGITUDE** 84°35'12.6"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		LEAN CLAY (USCS CL / AASHTO A-6), reddish brown and light brown, moist, stiff to medium dense	SPT 1	63	6-10-5-4 (15)			20				57
			SPT 2	71	3-3-4-7 (7)							
5		CLAYEY SAND (USCS SC / AASHTO A-6), reddish brown and light gray, fine grained, moist, medium desne	SPT 3	100	6-8-12-13 (20)			15				38
			SPT 4	100	8-15-23-28 (38)							
10			SPT 5	100	13-15-23-28 (38)							
		CLAYEY SAND (USCS SC / AASHTO A-2-6), brown and light brown, fine grained, moist, medium dense	SPT 6	100	6-7-9 (16)							
15												
		CLAYEY SAND (USCS SC / AASHTO A-2-6), light brown, fine grained, moist, medium dense	SPT 7	100	6-7-8 (15)							
20												

Bottom of borehole at 20.0 feet.

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER B-04

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION 248 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'20.4"N **LONGITUDE** 84°35'10.4"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		CLAYEY SAND (USCS SC / AASHTO A-2-4), brown to light brown, fine grained medium dense to loose	SPT 1	54	7-9-5-3 (14)							
		CLAYEY SAND (USCS SC / AASHTO A-6), light brown and light gray with red, fine grained, moist, medium dense to dense	SPT 2	71	2-3-3-2 (6)			20				49
5			SPT 3	100	5-8-12-15 (20)							
			SPT 4	100	15-17-20-16 (37)							
10			SPT 5	92	14-16-17-20 (33)							
		FAT CLAY (USCS CH / AASHTO A-7), light brown and light gray, moist, very stiff	SPT 6	100	4-7-11 (18)							
15												
		CLAYEY SILTY SAND (USCS SC-SM / AASHTO A-2-4), light brown and brown with light gray, fine grained, moist, medium dense	SPT 7	100	5-5-6 (11)							
20												

Bottom of borehole at 20.0 feet.

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER R-01

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION 253 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'21.7"N **LONGITUDE** 84°35'13.1"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		SILTY SAND (USCS SM / AASHTO A-2-4), brown, fine grained, loose	SPT 1	71	7-6-3-2 (9)			6				17
2		CLAYEY SAND (USCS SC / AASHTO A-2-6), light brown and reddish brown, fine grained, moist, loose to medium dense	SPT 2	67	2-3-5 (8)							
4			SPT 3	67	5-5-6 (11)							
5		Bottom of borehole at 5.0 feet.										

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER R-02

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/14/24 **COMPLETED** 11/14/24
GROUND ELEVATION 253 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'21.8"N **LONGITUDE** 84°35'10.7"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		SILTY SAND (USCS SM / AASHTO A-2-4), brown, fine grained, loose										
1		CLAYEY SAND (USCS SC / AASHTO A-2-6), light brown and reddish brown, fine grained, moist, loose to medium dense	SPT 1	75	9-10-4-6 (14)							
2			SPT 2	100	5-6-7 (13)							
3												
4			SPT 3	94	11-14-14 (28)							
5		Bottom of borehole at 5.0 feet.										

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER R-03

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION 252 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'21.2"N **LONGITUDE** 84°35'14.0"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0		SILTY SAND (USCS SM / AASHTO A-2-4), brown, fine grained, loose										
		CLAYEY SAND (USCS SC / AASHTO A-6), light brown and reddish brown, fine grained, moist, loose to medium dense										
1			SPT 1		6-3-2-2 (5)			15				41
2			SPT 2		2-2-3 (5)							
3												
4			SPT 3		5-7-9 (16)							
5		Bottom of borehole at 5.0 feet.										

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER R-04

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/14/24 **COMPLETED** 11/14/24
GROUND ELEVATION 246 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'19.5"N **LONGITUDE** 84°35'11.8"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		CLAYEY SAND (USCS SC / AASHTO A-2-6), light brown and reddish brown, fine grained, dry to moist, medium dense	SPT 1	67	6-11-11-9 (22)							
1												
2			SPT 2	67	5-6-10 (16)							
3												
4			SPT 3	67	5-4-4 (8)							
5		Bottom of borehole at 5.0 feet.										

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

Southern Earth Sciences
1246 Timberlane Road
Tallahassee, Florida 32312
Telephone: (850) 576-4652

BORING NUMBER SW-01

CLIENT Clemons Rutherford & Associates, Inc.
PROJECT NAME Gadsden County EMS
PROJECT NUMBER T24-350
PROJECT LOCATION Joe Adams Road, Gadsden County, Florida
DATE STARTED 11/14/24 **COMPLETED** 11/14/24
GROUND ELEVATION 244 **HOLE SIZE** 2 inches
DRILLING PERSONNEL Down Right Drillin'. LLC
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
SEASONAL HIGH AFTER DRILLING ---
LOGGED BY C. Curtis **CHECKED BY** M. Wilson
WATER TABLE AFTER DRILLING ---
LATITUDE 30°33'18.9"N **LONGITUDE** 84°35'12.4"W
24-HR WATER LEVEL AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	ORG. CONTENT. (%)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		CLAYEY SAND (USCS SC / AASHTO A-6), light brown and reddish brown, fine grained, medium grained	SPT 1	63	8-13-12-11 (25)							
			SPT 2	71	5-5-5-5 (10)			9				39
5		CLAYEY SAND (USCS SC / AASHTO A-6) glass debris, reddish brown with grayish, fine grained, medium dense	SPT 3	96	3-6-5-4 (11)			13				35
		CLAYEY SAND (USCS SC / AASHTO A-2-6), brownish gray to gray and reddish brown, fine grained, moist, loose to medium dense	SPT 4	100	2-2-5-4 (7)			12				27
10		FAT CLAY (USCS CH / AASHTO A-7), gray and reddish brown, moist, very stiff	SPT 5	100	6-9-13-18 (22)			20				63
15			SPT 6	100	6-9-12 (21)			22				51
		POORLY GRADED SANDS WITH CLAY (USCS SP-SC / AASHTO A-3), light tan, moist, medium dense to loose	SPT 7	100	5-7-9 (16)			5				10
20												
25			SPT 8	100	4-4-5 (9)			5				5

Bottom of borehole at 25.0 feet.

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 12/18/24 08:40 - F:\PROJECTS\2024\T24-350\REPORT INFO\T24-350 GADSDEN EMS.GPJ

APPENDIX C

NRCS CUSTOM SOIL RESOURCE REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Gadsden County, Florida



December 13, 2024

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Gadsden County, Florida.....13
14—Cowarts-Dothan-Fuquay complex, 5 to 8 percent slopes.....13
46—Orangeburg loamy sand, 2 to 5 percent slopes.....16
References.....18

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,030 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Gadsden County, Florida
Survey Area Data: Version 30, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—Mar 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
14	Cowarts-Dothan-Fuquay complex, 5 to 8 percent slopes	2.6	45.7%
46	Orangeburg loamy sand, 2 to 5 percent slopes	3.0	54.3%
Totals for Area of Interest		**5.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Gadsden County, Florida

14—Cowarts-Dothan-Fuquay complex, 5 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2wyxb
Elevation: 100 to 400 feet
Mean annual precipitation: 40 to 69 inches
Mean annual air temperature: 55 to 70 degrees F
Frost-free period: 190 to 310 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cowarts and similar soils: 33 percent
Dothan and similar soils: 30 percent
Fuquay and similar soils: 28 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cowarts

Setting

Landform: Hillslopes on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Marine deposits

Typical profile

Ap - 0 to 4 inches: loamy fine sand
BE - 4 to 8 inches: fine sandy loam
Bt1 - 8 to 15 inches: sandy clay loam
Bt2 - 15 to 29 inches: sandy clay loam
Bt3 - 29 to 40 inches: sandy clay loam
C1 - 40 to 45 inches: sandy clay loam
C2 - 45 to 57 inches: sandy clay loam
C3 - 57 to 80 inches: sandy loam

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 36 to 54 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B
Hydric soil rating: No

Description of Dothan

Setting

Landform: Hillslopes on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy marine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 9 inches: loamy fine sand
Bt1 - 9 to 17 inches: fine sandy loam
Bt2 - 17 to 49 inches: sandy clay loam
Btv1 - 49 to 62 inches: sandy clay loam
Btv3 - 62 to 80 inches: sandy clay loam

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 39 to 55 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Forage suitability group: Loamy and clayey soils on rises and knolls of mesic uplands (G133AA321FL)
Other vegetative classification: Loamy and clayey soils on rises and knolls of mesic uplands (G133AA321FL)
Hydric soil rating: No

Description of Fuquay

Setting

Landform: Hillslopes on marine terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits over loamy marine deposits

Typical profile

Ap - 0 to 7 inches: sand
E1 - 7 to 23 inches: sand
E2 - 23 to 37 inches: sand

Btv1 - 37 to 43 inches: sandy loam
Btv2 - 43 to 54 inches: sandy clay loam
Btv3 - 54 to 80 inches: sandy clay loam

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 40 to 61 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Orangeburg

Percent of map unit: 5 percent
Landform: Interfluves on marine terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex, linear
Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G133AA311FL)
Hydric soil rating: No

Lucy

Percent of map unit: 4 percent
Landform: Broad interstream divides on marine terraces
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex, linear
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G133AA211FL)
Hydric soil rating: No

46—Orangeburg loamy sand, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2sms1
Elevation: 40 to 500 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 55 to 72 degrees F
Frost-free period: 190 to 310 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Orangeburg and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Orangeburg

Setting

Landform: Broad interstream divides
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Marine deposits

Typical profile

Ap - 0 to 7 inches: loamy sand
BA - 7 to 12 inches: sandy loam
Bt1 - 12 to 54 inches: sandy clay loam
Bt2 - 54 to 80 inches: sandy clay loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B
Forage suitability group: Loamy and clayey soils on knolls and ridges of mesic uplands (G133AA311FL)
Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G133AA311FL)
Hydric soil rating: No

Minor Components

Benevolence
Percent of map unit: 10 percent
Landform: Broad interstream divides
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Faceville
Percent of map unit: 5 percent
Landform: Knolls
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G133AA311FL)
Hydric soil rating: No

Lucy
Percent of map unit: 3 percent
Landform: Broad interstream divides
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G133AA211FL)
Hydric soil rating: No

Norfolk
Percent of map unit: 2 percent
Landform: Interfluves
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve, rise
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Loamy and clayey soils on rises and knolls of mesic uplands (G133AA321FL)
Hydric soil rating: No

APPENDIX D

DOUBLE RING INFILTROMETER TEST REPORT

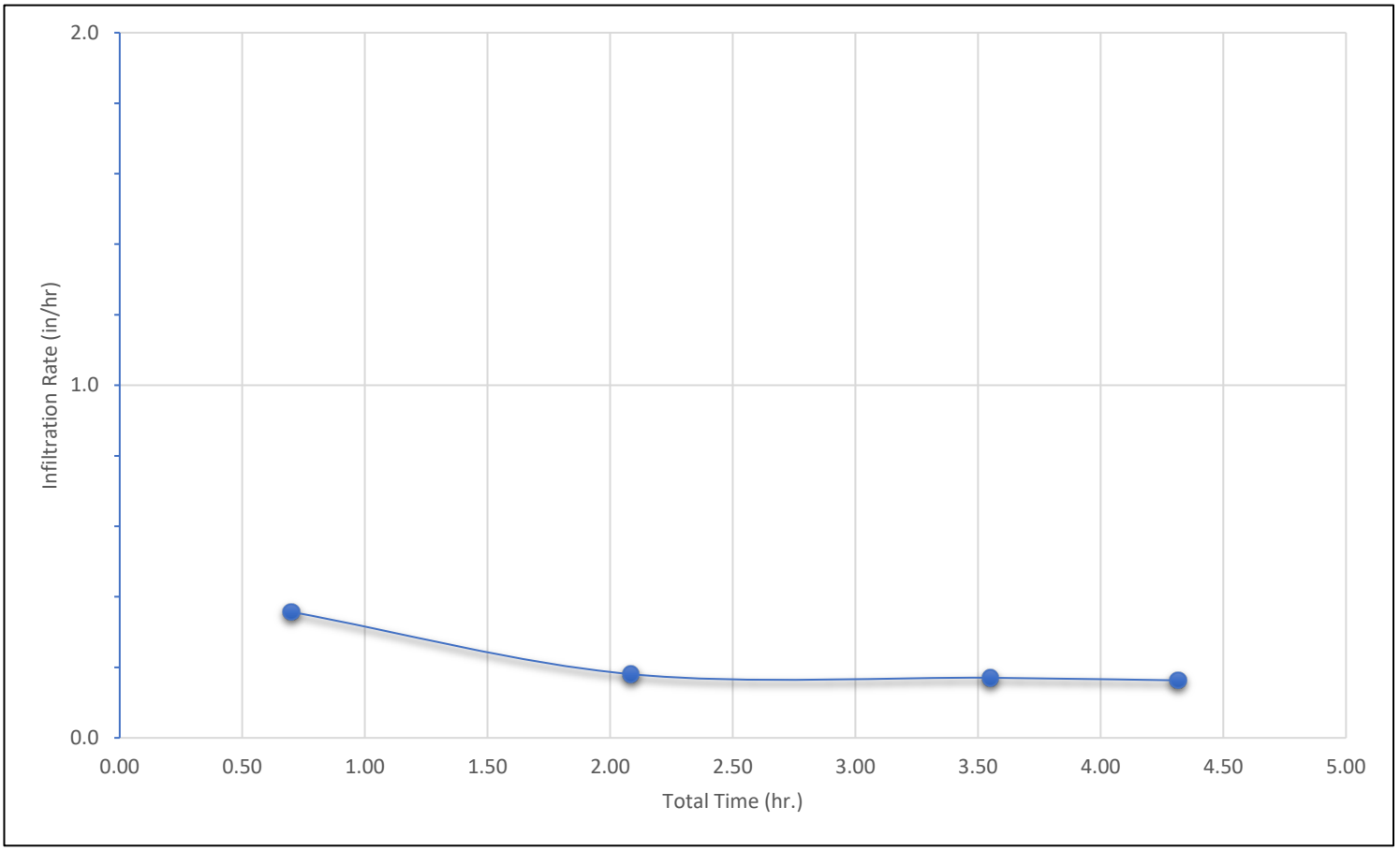
Double Ring Infiltrometer Test Report

Falling Head Method

ASTM D3385-18

Project (SES File No.)	Gadsden County EMS (T24-350)
Date(s) of Testing	December 12, 2024
Tested By	Colin Curtis
Material Tested (USCS / AASHTO)	SC (A-6)
Test Depth (Approx. Elevation)	4.5 feet below existing grade (+239.5)

DRI-01



Confidentiality Notice: The information in this report is for the sole purpose of the intended recipient. Any reproductions without express consent of the recipient or SESI is prohibited.

Notes:

- Subsurface conditions near the DRI Location are shown on boring log sheet SW-01.

DRI Test Result	
0.2	in/hr
0.4	ft/day

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

Double Ring Infiltrometer Test Data

DRI-01

Rate Data

Drop (in)	Time (min)	Infiltration Rate (in/hr)	Total Time (hr)
0.250	42	0.4	0.70
0.250	83	0.2	2.08
0.250	88	0.2	3.55
0.125	46	0.2	4.32

Water Conditions		
pH		6.9
Temperature (°F)	Before	44
	After	53
Depth (in)	Inner Ring	5
	Outer Ring	5
Soil Conditions		
Temperature (°F)	Before	42
	After	50
Moisture Content (%)		13
Fines Content (%)		35
Ambient Conditions		
Temperature (°F)	Before	45
	After	57
Weather		Clear

APPENDIX E

IMPORTANT INFORMATION ABOUT THE GEOTECHNICAL REPORT

DRILLING AND PENETRATION TESTING PROCEDURES

The borings were advanced with a 4-inch continuous flight auger, hollow stem auger or by a mud rotary drilling process. At regular intervals, the drilling tools were withdrawn and soil samples obtained with a standard 1.4-inch I.D., 2.0-inch O.D., split-tube sampler.

The sampler was initially seated six inches to penetrate loose cuttings, then driven an additional foot with blows of a 140 pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot was recorded and is designated the "penetration resistance". Penetration resistance is an index to the soil strength and density which may be evaluated in engineering design.

The samples were visually classified in the field by the driller as they were obtained. Representative portions of each soil sample were then sealed in plastic bags and transported to our laboratory where they were examined by an Engineer or Geologist to verify the field classifications.

ENGINEERING CLASSIFICATION

COHESIONLESS SOILS (SANDS)

DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	50 TO 100

COHESIVE SOILS (CLAYS)

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, qu, tsf	BLOW COUNT "N"
VERY SOFT	<1/4	0 TO 2
SOFT	¼ TO ½	2 TO 4
MEDIUM STIFF	½ TO 1	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	>4	>30

N = Number of blows for each foot of penetration into soil; 2" O.D. split spoon sampler driven by 140 pound hammer dropping 30 inches.

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration*** by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are not building-envelope or mold specialists.***

GEOPROFESSIONAL BUSINESS ASSOCIATION

Telephone: 301/565-2733
e-mail: info@geoprofessional.org www.geoprofessional.org

Copyright 2019 by Geoprofessional Business Association (GBA). Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with GBA's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of GBA, and only for purposes of scholarly research or book review. Only members of GBA may use this document or its wording as a complement to or as an element of a report of any kind. Any other firm, individual, or other entity that so uses this document without being a GBA member could be committing negligent or intentional (fraudulent) misrepresentation.

PAGE LEFT BLANK INTENTIONALLY

SECTION 03 03 20 – CONCRETE WORK-GENERAL

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The work under this section includes all materials, equipment, and labor and performing all operations for constructing the site concrete work including lightweight concrete as shown on the drawings, called for herein, or necessary for the proper completion of the work in accordance with these specifications and to the lines, notes, and dimensions indicated on the drawings or specified herein. Concrete work specifically intended for building and other structural concrete shall refer to the structural specifications specifically intended for those elements.

1.2 GENERAL REQUIREMENTS

A. Whenever a standard, regulation, code, specification, or other publication is referenced herein, it shall be applicable on all matters not in conflict with these specifications as if fully set forth herein and as provided in the General or Special Conditions for referenced specifications. Except where a particular edition is called for, such referenced publications shall be the latest edition on the date of the Contract Documents and abbreviations used in the titles thereof are as follows:

1. ASTM: American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania, 19103.
2. ACI: American Concrete Institute, Box 19150, Detroit, Michigan, 48219.
3. FDOT: Florida Department of Transportation, 605 Suwannee St. Tallahassee, Florida 32399

B. All concrete for pavement, including sidewalks, driveways, and curb and gutter shall be placed, finished, and cured in accordance with Florida Department of Transportation Specifications.

1.3 MATERIALS - GENERAL

A. Except where specifically noted otherwise, all concrete shall be readymix, normal weight, as produced by a plant acceptable to the Engineer. Job-mix concrete may be used for small quantities upon specific approval of the Engineer.

PART 2 - MATERIALS

2.1 CEMENT

A. Cement shall be a single brand of approved American made Portland cement conforming to ASTM C150. All cement shall be gray in color including cement for concrete to receive special finishes.

B. Air-entraining admixtures are allowable.

C. Unless otherwise noted, Type I (normal) cement shall be used only in precast prestressed elements: lightweight concrete; concrete cradles; encasements and thrust blocks; concrete fill other than in tanks containing sewage; concrete cast-in-place piling; concrete pavement, sidewalks, curbs, gutters and driveways.

D. Unless otherwise specified, Type II (sulfate-resistant) Portland cement shall be used in all other concrete and may be used where Type I is specified.

E. Type III (high-early-strength) cement may be used only with the written permission of the Engineer, but no additional payment will be made to the Contractor for the use thereof.

F. In addition to the requirements of ASTM C150, cements to be used in exposed concrete shall exhibit no efflorescence when tested in accordance with ASTM C67.

G. All cement to be used in the work shall be subject to testing to determine conformity to the requirements of the specifications. The methods of testing shall conform to the appropriate specifications but the place, time, frequency, and method of sampling will be determined by the Engineer in accordance with the particular conditions of this project. If required by the Engineer, the Contractor shall furnish sworn certificates of mill tests of cement, in triplicate, at least 7 days before the cement will be used. The Owner reserves the right to make such independent tests as he may deem necessary at any time.

H. Cement which is partially set or which is lumpy or caked shall not be used and the entire contents of the sack of cement or the container of bulk cement which contains damaged, partially set, or lumps of caked cement will be rejected for use.

2.2 AGGREGATES

A. All aggregates shall be fine washed, natural sand, conforming to ASTM C33.

B. When directed, the Contractor shall furnish clearly labeled samples of aggregates to the Engineer for approval.

2.3 ADMIXTURES

A. Admixtures causing accelerates setting of cement in concrete or containing chloride ions shall NOT be used.

B. Admixtures to provide air entrainment shall conform to ASTM C260.

C. No other admixture shall be used except with the specific approval of the Engineer.

2.4 WATER

A. Mixing water for concrete shall be clean, fresh, and suitable for drinking and shall not contain injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances. Water from any source other than a municipal water supply shall be shown by test to comply with Florida DOT requirement for mixing water.

2.5 CONCRETE QUALITY

A. Concrete shall have the following minimum compressive strengths when tested at 28 days in accordance with ASTM C172, ASTM C31 and ASTM C39:

1. Class A 4,000 psi
2. Class C 2,500 psi

B. Unless otherwise specified or noted, class of concrete shall be as follows:

1. Sidewalks, curb and gutter, splash blocks, pipe cradles and encasements, thrust blocks, and other non-structural concrete as approved by Engineer ---------- Class C

2. All concrete pavement subject to vehicular loads, such as drive isles and

driveways, shall be Class A.

3. All other concrete ---------- Class A

4. Class A concrete may be used at the option of the Contractor wherever Class C is specified, but at no additional cost to the Owner.

C. Concrete, when placed, shall be of a plastic consistency such that it can be readily worked into all parts of the forms and around embedded items without segregation of materials or accumulation of free water on the surface. Except as specified otherwise for special finishes, slump as measured in accordance with ASTM C143 shall be as follows:

Class	Not Less Than	Not More Than
A	1-1/2 inches	3-1/2 inches
C	2 inches	5 inches

D. Air entrainment, as determined in accordance with ASTM C173 of not less than 4 nor more than 6 percent by volume, shall be provided in Class A concrete and Class C concrete exposed to weather, frost, or groundwater.

2.6 CONCRETE PROPORTIONS

A. Materials used in concrete shall be proportioned in accordance with ACI 211.1 and approved by the Engineer as provided in Paragraph 9.2. Class A concrete shall be proportioned to provide a water/cement ratio not to exceed 0.45 and a cement content of not less than 564 pounds per cubic yard.

B. Submit to the Engineer for approval not less than 7 days before concrete is to be placed, in duplicate, a report certified by an independent testing laboratory containing the following:

1. Recommended proportions of materials to be used in concrete.

2. Result of the testing of all materials in accordance with ASTM specification including sieve analysis, specific gravity, and dry-rodded weight of aggregates.

3. Result of testing laboratory trial batches in accordance with ASTM C39 and C192.

C. All testing and analyses of materials shall have been done not more than 4 months prior to the date of submission and the certified report shall state the date thereof.

D. Proportions of materials shall be based on accurate measurements thereof by weight taken separately.

E. Costs of the services of the independent testing laboratory in testing materials and determining mix proportions shall be borne by the Contractor.

2.7 PLANT APPROVAL

A. The Engineer, or his authorized representative, shall have the right and shall be afforded any facility to inspect the plant where concrete is batched including materials used and methods of proportioning, mixing, and delivery of concrete; all of which shall be in accordance with the specifications and meet the approval of the Engineer. No ready-mixed concrete shall be ordered until the Engineer has given his approval thereof.

2.8 MIXING AND DELIVERY

A. Ready-mixed concrete shall be used. All mixing requirements specified herein shall be enforced and the Owner's laboratory representative and the Engineer shall have free access to the mixing plant at all times. Except for material and/or procedure otherwise specified herein, ready-mixed concrete shall be mixed and delivered in accordance with the requirements of ASTM C94. No water shall be added to the concrete after it leaves the plant except as specifically approved by the Engineer and it shall be so noted on the batch ticket.

B. Neither the speed of any mixer nor the quantity of material loaded into any mixer shall exceed the recommendations of the manufacturer. Excessive mixing, requiring additions of water to preserve the required consistency, shall be cause for rejection of the batch. Concrete shall not remain in a transit mixer or agitator truck more than 90 minutes after the water is introduced (and not more than 45 minutes if an approved retarding agent is not used). Minimum mixing time shall be 50 revolutions of drum at rated speed.

C. Equipment necessary to determine and control the actual amounts of all materials entering the concrete shall be provided by the concrete manufacturer. All materials shall be measured by weight, except that water may be measured by volume calculated at 8-1/3 pounds per gallon. One bag of cement will be considered as 94 pounds in weight.

D. Accompany each batch of concrete delivered to the site shall be a trip ticket that shall indicate the following information: (1) time mix was batched stamped on ticket, (2) brand and type of cement, (3) bags of cement per cubic yard of concrete, (4) planned slump, (5) admixture, and (6) name of supplier. These tickets shall be given to the Engineer when the truck arrives on the job.

E. Attention is directed to the importance of dispatching trucks from the batching plant so that they shall arrive at the site of the work just before the concrete is required, thus avoiding excessive mixing of concrete while waiting. Concrete shall be discharged into forms according to the time limits below after water was first added to the mix and shall be mixed at least 5 minutes after all water has been added.

1. Time Schedule

Ambient Temperature	Time Limit
Less than 85 degrees F	90 minutes
85 degrees F or greater	

2.9 FORMS

A. Forms shall be securely braced, substantial and unyielding, and of sufficient strength to hold the concrete without bulging between supports, or without deviation from the neat lines as shown on the drawings. Forms shall be mortar tight and shall be constructed of pre-fabricated metal, plywood, or dressed lumber of uniform thickness, with or without a form liner. Where concrete structures are circular or are otherwise shown to have curved surfaces, forms shall be constructed to provide such curvature and shall not consist of a series of flat surfaces.

B. The spacing of joists and wales shall be such as to prevent warp and bulging and to produce true and accurate surfaces. All form facing shall be free from knot holes, loose knots, cracks, splits, warps, or other defects affecting its strength or the appearance of the finished concrete surface. Fiber board or other manufactured material, approved by

the Engineer, may be used as a lining for forms. Where a grout finish is specified, form facing shall be of plywood or other approved material with the number of seams kept to a practical minimum and arranged in an orderly and symmetrical manner.

C. The interior surfaces of forms shall be adequately oiled, greased, or soaped to prevent adhesion of mortar. Form oil for exposed work shall be non-staining. Before placing of concrete the forms shall be cleaned of all dirt, sawdust, shavings, or other debris and the surfaces shall be dampened.

D. Special care shall be exercised to secure smooth and tight-fitting forms which can be rigidly held to line and grade and removed without injury to the concrete. All corners in the finished work shall be true, sharp, and clean cut. Alignment of forms and grade of top chamfer strips shall be checked immediately after the placing of concrete in the forms.

E. Round forms may be constructed of spirally laminated plies of fiber. Total wall thickness shall be as specified by manufacturer with 6 inch (minimum) wide plies. Provide polyethylene coating on interior surface. Approved: A-Coated Sonotube.

F. Chamfer strips made from dressed dimensional 1 inch by 1 inch lumber cut on the diagonal shall be installed at the top of the forms on all, slabs, exposed outside corners, and other structures above grade.

G. Drip edge shall be made from wood quarterround and installed where shown. Extruded plastic fillets shall be used where detailed.

2.10 REINFORCING STEEL

A. In general, reinforcing steel shall conform to the specifications set forth in Section 415 of the FDOT Standard Specifications. All reinforcing shall be furnished substantially free from mill scale, rust, dirt, grease or other foreign matter. Reinforcing bars shall conform to the requirements of ASTM A615, Grade 60. All bars number 3 and larger shall be deformed bars.

B. Reinforcing steel shall be detailed, fabricated and placed according to the methods and standards recommended in Section 415 of the FDOT Standard Specifications

C. Splices in reinforcing mats shall be staggered. Horizontal mats shall be supported on metal chairs with all sills or pads below subgrade.

D. Wire fabric, unless otherwise shown or specified, shall be 6x6 – W1.4 x W1.4 woven or electrically welded wire fabric conforming to the requirements of ASTM A185.

2.11 EMBEDDED ITEMS

A. All sleeves, inserts, hangers, anchor bolts, dowels, nailing strips, or other embedded items shall be accurately set and firmly held in place while the concrete is deposited.

1. All ferrous metals embedments shall be hot dip galvanized after fabrication.

2. All aluminum embedments shall be coated with an approved coating to protect them from direct contact with the concrete.

B. Pipes, conduits, and other items embedded in the concrete shall be so placed and held that they do not misplace the reinforcing or weaken the concrete at points of maximum stress or where the concrete section is not sufficient to permit the reduction of area

caused by the embedment.

C. Waterstops shall be 9 inch hollow bulb dumb-bell type PVC for expansion joints, 6 inch flat dumb-bell type for construction joints. All waterstops shall have a minimum thickness of 1/4 inch. Waterstop material shall be continuous with joints made completely waterproof by fusion or solvent welding; welding shall develop 50 percent of the mechanical strength of the section and shall permanently retain its flexibility.

1. All joints below grade shall have waterstops.

2. All joints in hydraulic structures shall have waterstops to a point two feet above the design overflow level.

3. All expansion joints shall be full height of the wall.

D. All embedded items shall be thoroughly cleaned removing all rust, scale, oil, or other foreign matter prior to placing concrete. Drains, pipes, hollow inserts, and similar items shall be protected as approved by the Engineer to prevent the intrusion of concrete.

PART 3 - EXECUTION

3.1 PLACING CONCRETE

A. Concrete shall be placed in accordance with Sections 350 and 520 of the FDOT Standard Specifications.

B. The Contractor shall give the Engineer twenty-four (24) hours notice of intent to place concrete to enable prior inspection of forms and of conditions incidental to the pour. No concrete shall be placed until the forms have been approved by the Engineer and until all the reinforcement is in place and has been inspected and approved by the Engineer. No concrete shall be placed in water and forms shall be free from water, dirt, debris, or any foreign matter when concrete is placed. Normal weather limitations for placing concrete shall be adhered to and no concrete shall be exposed to the action of water before final setting.

C. The method and manner of placing concrete shall be such as to avoid the possibility of segregation or separation of the aggregates. If the quality of concrete as it reaches its final position is unsatisfactory, the method of placing shall be discontinued or adjusted until the quality of the concrete as placed is satisfactory. Open troughs or chutes shall be of metal or metal-lined. Where steep slopes are required, the chutes shall be equipped with baffles or shall be in short lengths that reverse the direction of movement. Where placing operations would involve dropping the concrete freely more than five feet, it shall be deposited through pipes of sheet metal or other approved material. Troughs, chutes, or pipes with a combined length of more than 30 feet shall be used only on written authority from the Engineer. All troughs, chutes, and pipes shall be kept clean and free from coatings of hardened concrete by being thoroughly flushed with water after each run or in its final position. Depositing a large quantity at any point and running or working it along the forms shall not be done. Special care shall be taken to fill each part of the forms and to work the coarse aggregate back from the face and to force the concrete under and around the reinforcing bars without displacing them. The concrete consistency as measured by slump shall be as specified herein.

D. Concrete shall be consolidated in accordance with section 350 of the FDOT standard specifications in a manner acceptable to the Engineer. Vibration shall be done by experienced operators under close supervision and the duration shall be held to the minimum necessary to produce thorough compaction without segregation. Where

vibrators are not used, all thin section 6 inch maximum thickness work shall be thoroughly worked with a steel slicing rod. All faces shall be well spaded and the mortar flushed to the surface by continuous working with a concrete spading implement acceptable to the Engineer.

E. In all cases where, on account of the obstructions produced by reinforcing metal, shapes or forms, or any other uncontrollable conditions, difficulty is encountered in puddling the concrete adjacent to the forms, the mortar content of the mix shall be brought into proper contact with the interior surfaces by vibrating the forms. The vibrations shall be produced by striking the outside surfaces of the form with wooden mallets or by other means satisfactory to the Engineer.

F. No concrete placing shall begin or continue without the express approval of the Engineer each day for each location if the ambient air temperature is less than 40 degrees Fahrenheit, or is predicted to fall below 36 degrees Fahrenheit during the next 24 hours, or 32 degrees Fahrenheit during the next 72 hours. Temperature of concrete when placed shall not be less than 55 degrees Fahrenheit. Chemicals to lower freezing temperature of concrete shall not be used.

G. When the ambient air temperature is 100 degrees Fahrenheit or above, the Engineer may require pre-cooling of aggregates with water sprays and scheduling of placing successive layers of concrete so as to cause maximum release and dissipation of the heat of setting, or other protective measures. In no case shall temperature of the concrete, forms, or reinforcing exceed 100 degrees Fahrenheit when concrete is being placed and, if necessary, forms and reinforcing shall be cooled by water spray prior to pouring concrete.

3.2 TEST SAMPLES

A. The Contractor will retain an independent testing laboratory to perform the sampling and testing of concrete furnished. Cost of the services of the laboratory will be borne by the Contractor with payment therefor made directly to the laboratory. The laboratory's representatives shall have free access to all points where concrete materials are stored, proportioned, mixed, or placed and the Contractor shall provide on-site facilities as needed by the laboratory to secure and store samples.

B. For each 100 cubic yards or portion thereof of each class of concrete placed each day, the laboratory shall take a sample from a batch of its selection as the concrete is being placed. No water shall be added or other change made in any batch after it has been sampled. In addition to other tests, the laboratory will made a set of 4 standard compression cylinders from each sample, one of which will be tested at 7 days, two tested at 28 days and one held in reserve. The Engineer will be furnished with a report of each test made. Testing of concrete at other times as needed by the Contractor will be at his expense and the Engineer shall be furnished with a report of all such tests made.

C. The Contractor shall advise the Engineer with 24 hours advance notice of the time and location of all concrete placing and make arrangements with the laboratory for the testing.

D. Compressive strength of a sample shall be determined by the average of the two cylinders tested at 28 days. Compliance with the strength requirements of these specifications shall be verified if the average compressive strength of three consecutive samples is not less than the specified strength for the class of concrete, provided no individual sample shall have a strength test result that falls below the specified strength by more than 500 psi.

E. If tests indicate that concrete delivered to the site does not comply with these specifications, the Engineer may reject such concrete and order changes in materials or proportioning for subsequent work. Rejected concrete shall be removed from the job and replaced as directed by the Engineer.

F. The Engineer may waive testing requirements on small quantities or concrete elements where strength is not critical.

3.3 CURING AND PROTECTION

A. All concrete work shall be protected against damage from the elements and defacement of any nature during construction operations.

B. Water shall not be permitted to rise on concrete within 24 hours after it is placed, nor shall running water be allowed to flow over completed concrete within four days after it has been placed.

C. All concrete shall be cured in accordance with FDOT Specification 520 and shall be treated immediately after concreting or cement finishing is completed to provide continuous moist curing for at least seven days, regardless of the adjacent air temperature. Horizontal surfaces, slabs, etc., shall be ponded to a depth of 1/2" wherever practicable or kept continuously wet by the use of lawn sprinklers, a complete covering of continuously saturated burlap, or by other approved means. The Contractor may, at his option, use a membrane curing compound approved by the Engineer in lieu of water curing of concrete, provided such compounds shall not be used on surfaces that are to receive additional concrete, paint, tile, or other materials that require a positive bond, unless it has been demonstrated that the membrane can satisfactorily serve as a base for such additional applications. The compound shall comply with ASTM C309 and be compatible with floor hardeners used, shall be delivered to the job in the manufacturer's containers, and shall be applied in strict accordance with the manufacturer's printed instructions.

D. Curing compound for exposed surfaces shall be non-staining.

E. For at least seven days after having been placed, all concrete shall be so protected that the temperature at the surface will not fall below 50 degrees Fahrenheit.

F. No manure, salt, or other chemicals shall be used for protection.

G. The above mentioned seven-day periods may be reduced to three days in each case if high-early- strength cement, as described in Paragraph 2.1.E., is used in the concrete.

H. Wherever practicable, finished slabs shall be protected from the direct rays of the sun to prevent checking and crazing.

3.4 FINISHING - GENERAL

A. Unless otherwise noted, strike off concrete surfaces to elevations and profiles indicated

and finish with wood or cork float or steel trowel as hereinafter specified, even and true, free from cracks, pockets, or other imperfections. Discontinue as soon as water appears on surface. Finishes, except at warped surfaces, shall be such that irregularities shall not exceed 1/4" as measured by a 10' straight edge.

B. Following removal of forms, thoroughly wet all surfaces to remain exposed. Fill all honeycombs, tie rod holes, and areas damaged in form removal with grout composed of one part Portland cement to two parts of sand, with water as required, and rub with abrasive stones to smooth, uniform surface.

C. Any work not formed as indicated on the drawings or that is not of alignment or level or shows a defective surface shall be corrected in a manner satisfactory to the Engineer.

D. It is expected that forms, concrete, and workmanship shall be such that the quantity of trimming and repair work is kept to a minimum. Defective concrete shall be cut normal to the surface until sound concrete is reached, but not less than 1" deep; the remaining concrete shall be thoroughly roughened and cleaned.

E. All exposed concrete surfaces, except troweled surfaces and the interior surfaces more than 6 inches below low water level of all concrete tanks, channels, and conduits (both open and covered) which will contain or transmit water, sewage, or sludge, shall be given a grout finish application. Exterior walls shall be so finished to a point 12" below final grade. This operation shall not be undertaken until all the concrete work for the particular structural unit is completed and all mortar splatter and soil stains have been removed.

F. The grout finish shall be 1:1 by volume cement-sand grout using sand passing the No. 16 sieve. The surface shall be cleaned, thoroughly wetted, and the grout mixed to creamy consistency shall be scrubbed into the surface with a stiff brush. Defective or loose concrete shall be removed and repaired to the satisfaction of the Engineer prior to grouting. Grout shall be cured a minimum of three (3) days by keeping continuously moist with wet burlap or water spray.

G. Unless otherwise specified, all surfaces not built against forms, such as surfaces of pit floors or tank bottoms and similar surfaces, shall be accurately screened to the required form, wood floated, and steel troweled to a hard even finish. All slabs, walks, and pavement shall be lightly broomed after troweling. The brooming shall be sufficient to mark the surface without appreciably disturbing the troweled finish. Slabs to be painted shall not be broomed.

H. Unless otherwise directed, all edges and corners which will be exposed to the finished work shall be beveled or rounded by the use of appropriate forms or form inserts, and care shall be taken to prevent chipping or cracking of finished edges.

3.5 NON-SHRINK GROUT

A. Grout, where called for on the drawings, shall be non-shrink grout. Non-shrink grout shall be a proprietary type grout composed of pre-mixed grouting cement, aggregates, and appropriate additives to which only water needs to be added at the site to produce the finished product. Amount of water to be added shall be the minimum required for the intended purpose (depending on whether it is a dry-pack or self-leveling application) and it shall be in accordance with the manufacturer's instructions. The grout shall be specially formulated to make it absolutely non-shrink and the supplier shall be able to furnish test data from an independent testing laboratory proving their grout to be non-shrink under the conditions of usage anticipated. It shall also be a grout that will have a seven day strength not less than 4,000 psi. The grout shall be placed in a manner that will insure complete filling in of holes under base plates and complete contact with the plates. Exposed surfaces of the non-shrink grout shall be such that it is not subject to corrosive erosion or staining, due either to pertaining to them, and methods of installation shall be submitted for approval to the Engineer during the shop drawing submittal period. Approved for this material are Embeco 636 Grout and/or Masterflow 713 Grout, as manufactured by the Master Builders Company, or equal.

END OF SECTION 030320

SECTION 055000 - METAL FABRICATION

PART 1 - GENERAL

1.01 STRUCTURAL PERFORMANCE: Provide the following assemblies capable of withstanding loadings indicated:

A. Handrails and Toprails: Concentrated load of 200 lbf applied at any point in any direction and a uniform load of 50 lbf per lin. ft. applied simultaneously in both vertical and horizontal directions.
1. All railings fabricated and installed shall comply with ADA requirements.

B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.02 SUBMITTALS: In addition to product data, submit shop drawings showing details of fabrication, assembly and installation including templates for anchor bolt placement.

A. Samples of materials and finished products as may be requested by Architect.

PART 2 - PRODUCTS

2.01 MATERIALS/FABRICATION: For work exposed to view use materials selected for their smoothness and freedom from surface blemishes.

A. Steel Plates, Shapes, and Bars: ASTM A 36.

B. Structural Steel Sheet: ASTM A 570 or ASTM A 611, Class 1; of grade required for design loading.

C. Galvanized Structural Sheet: ASTM A 446, of grade required for design loading; coating designation G90 or as indicated.

D. Steel Pipe: ASTM A 53, type and grade as required for design loading (if applicable), black finish unless galvanizing indicated; standard weight (Schedule 40) unless otherwise indicated. All handrails shall be 12@ o.d.

E. Aluminum Pipe: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of alloy and temper designated below for each aluminum form required.
1. Extruded Tubing: ASTM B221, Alloy 6063-T5/T52.
2. Extruded Structural Pipe and Round Tubing: ASTM B 429, Alloy 6063-T6. Provide standard Weight (Schedule 40) pipe, unless otherwise noted.

H. Exterior Railings: Fabricate using Schedule 80 aluminum.

6. Stair Nosings: Provide stair nosings Type 3711 as manufactured by American Safety Tread Co., Helena, AL OR approved equal. The base shall consist of heat treated extruded aluminum alloy 6063-T6 with a abrasive filler. The abrasive ribs shall project a minimum of 1/16" above the extruded channels. Nosings shall be full length of steps less 1/8" clearance. Abrasive filler color shall be selected by Architect.

7. Stair Nosings: Roll-formed stainless steel to ASTM A167, Type 304 (V2A), heavy-traffic use, slip-resistant stair tread with integral perforated anchoring leg for setting the assembly into setting bed. Provide ATREP-E Stair Nosings@ by Schluter Systems OR approved equal. Height of nosing shall be 10 mm or as required to suit application. Install as recommended by manufacturer. See cut sheet at end of this section for profile of nosing.

G. Concrete Inserts: Threaded or wedge type; galvanized ferrous castings, either galvanized ferrous castings, malleable iron, cast steel; with steel bolts, washers and shims; hot-dip galvanized.

H. Non-Shrink Non-Metallic Grout: CE CRD-C621, non-staining, non-corrosive, non-gaseous; recommended by mfr. for types of applications indicated.

I. Fasteners: Provide bolts, nuts, lag bolts, machine screws, wood screws, toggle bolts, masonry anchorage devices, lock washers as required for application indicated and complying with applicable Federal standards. Hot-dip galvanize fasteners for exterior applications to comply with ASTM A 153.

2.02 SHOP PAINTING: Apply shop primer to surface of metal fabrications except those embedded in concrete or galvanized; comply with SSPC-PA1 and requirements indicated below:

A. Surface Preparation: Comply with SSPC-SP6 "Commercial Blast Cleaning" for exterior work, and with SSPC-SP3 "Power Tool Cleaning" for interior work.

B. Shop Primer: Fabricator's standard, fast-curing, lead-free, "universal" primer complying with performance requirements of FS TT-P-645.

C. Stripe paint edges, corners, crevices, bolts, welds and sharp edges.

2.03 GALVANIZING: ASTM A 386 for assembled products; ASTM A 123 for rolled, pressed and forged steel shapes, plates, bars and strip 1/8" and thicker; galvanizing repair paint: MIL-P-21035 or SSPC-Paint-20.

2.04 FABRICATION, GENERAL: Use materials of size and thickness shown, or, if not shown, of required size, grade and thickness to produce strength and durability in finished product. Shop-paint all items not specified to be galvanized after fabrication.

A. Weld corners and seams continuously; grind exposed welds smooth and flush.

B. Form exposed connections with hairline, flush joints; use concealed fasteners where possible.

2.05 ROUGH HARDWARE: Furnish custom-fabricated bolts, plates, anchors, hangers, dowels, and other miscellaneous steel and iron shapes for framing and supporting and anchoring woodwork. Galvanize, unless otherwise indicated.

2.06 MISCELLANEOUS FRAMING AND SUPPORTS: Provide as required to complete work. Fabricate of welded construction in as large units as possible; drill and tap as required to receive hardware and similar items. Include required anchors for building into other work; spaced not more than 24" o.c.

PART 3 - EXECUTION

3.01 INSTALLATION: Perform cutting, drilling and fitting required for installation; set work accurately in location, alignment and elevation, measured from established lines and levels. Provide anchorage devices and fasteners where necessary for installation to other work.

3.03 ALL RAILINGS shall be set in non-shrink, non-pourable grout. Grout shall be placed in a dome shape, higher than the surrounding grade.

3.02 TOUCH-UP SHOP PAINT after installation. Clean field welds, bolted connections and abraded areas, and apply same type paint as used in shop. Use galvanizing repair paint on damaged galvanized surfaces.

END OF SECTION 05500

SECTION 06100 - ROUGH CARPENTRY

PART 1 - GENERAL

1.01 Lumber, General: Manufacture lumber, S4S and grade stamped, to comply with PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review. Provide seasoned lumber with 19 percent moisture content at time of dressing and shipment, for sizes 2" or less in thickness. **All lumber shall be fire-retardant treated.**

1.02 Blocking: All wood blocking shall be a minimum 3/4" plywood. This applies to backing supporting for millwork, headwalls, oak crash rails, toilet accessories, metal lockers, t.v. brackets, etc. or unless otherwise indicated in drawings or by manufacturer of the product being hung.

A. Wood blocking methods shall be approved by manufacturers of all wall supported systems.

1.03 Related Sections:

A. Section 10800 - Toilet and Bath Accessories for blocking requirements.

B. Section 11132 - Projection Screens.

C. Section 10500 - Metal Lockers.

PART 2 - PRODUCTS

2.01 Dimension Lumber:

A. Construction grade light-framing lumber (2"-4" thick, 2"-4" wide): Any species graded under WWPA or WCLIB rules or Southern Pine graded under SPIB rules or Western Spruce-Pine-Fir graded under NLGA rules.

B. Studs (2"-4" thick, 2"-6" wide, 10' and shorter): "Stud" or No. 3 Structural Light Framing grade, any species graded under WWPA, WCLIB, SPIB OR NLGA rules.

2.02 Lumber for Miscellaneous Uses: Unless otherwise indicated, provide Standard grade lumber for support of other work, including bucks, nailers, blocking, furring, grounds, stripping and similar members.

2.03 Fasteners and Anchorages: Of size, type, material and finish suited to application shown and of quality equal to products by Simpson Strong Tie Co., Inc. Provide metal hangers and framing anchors of size and type recommended for intended use by manufacturer. Hot-dip galvanize fasteners and anchorages for work exposed to weather, in ground contact and high relative humidity to comply with ASTM A 153.

2.04 Preservative pressure treat lumber with water-borne preservatives to comply with AWPA C2 and C9, respectively, and with AWPB LP-22 (Wood for Ground Contact Use) and AWPB LP-2 (Wood for Above-Ground Use).

A. Treat nailers, blocking, and similar items in conjunction with flashing and treat sills, blocking, furring, and similar items in direct contact with masonry or concrete.

2.05 WALL SUPPORT SYSTEM AND ROUGH-IN REQUIREMENTS: Provide blocking as recommended by the manufacturer for all wall hung items.

SECTION 061000 – ROUGH CARPENTRY (continued):

PART 3 - EXECUTION

3.01 Install rough carpentry work to comply with "Manual of House Framing" by National Forest Products Assoc. (N.F.P.A.) and with recommendations of American Plywood Association (APA), unless otherwise indicated. For sheathing and other products not covered in above standards, comply with recommendations of manufacturer of product involved for use intended. Set carpentry work to required levels and lines, with members plumb and true and cut to fit.

3.02 Securely attach carpentry work to substrates and supporting members using fasteners of size that will not penetrate members where opposite side will be exposed to view or receive finish materials. Install fasteners without splitting wood; fasten panel products to allow for expansion at joints unless otherwise indicated.

3.03 Provide wood framing members of size and spacing indicated; do not splice structural members between supports.

END OF SECTION 061000

SECTION 064123 - INTERIOR ARCHITECTURAL WOODWORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1, apply to work of this section.

1.02 DESCRIPTION OF WORK: Extent of each type of architectural millwork is indicated on drawings. Types of architectural millwork include laminate clad cabinets including tops and opaque shelving.

1.03 QUALITY ASSURANCE

A. AWI Quality Standard: Comply with applicable requirements of "Architectural Woodwork Quality Standards" published by the Architectural Woodwork Institute (AWI) and American Laminators Association (ALA), except as otherwise indicated.

B. Installer Qualifications: Arrange for installation of architectural millwork items by same firm which fabricated them.

1.04 SUBMITTALS

A. Shop Drawings: Submit shop drawings showing location of each item, dimensioned plans and elevations, large scale details, joinery, attachment devices and other components. All shop drawings shall indicate use of marine grade plywood.

B. Samples: Submit samples of plastic laminate and all cabinet hardware, one unit of each type and finish.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect millwork during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

B. Do not deliver millwork, until painting, wet work, grinding and similar operations which could damage, soil or deteriorate millwork have been completed in installation areas. If, due to unforeseen circumstances, millwork must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

1.06 PROJECT CONDITIONS

A. Conditioning: Millwork Manufacturer and Installer shall advise Contractor of temperature and humidity requirements for millwork installation and storage areas. Do not install millwork until required temperature and relative humidity have been stabilized and will be maintained in installation areas.

B. Maintain temperature and humidity in installation area as required to maintain moisture content of installed millwork within a 1.0 percent tolerance of optimum moisture content, from date of installation through remainder of construction period. Require Millwork Manufacturer to establish optimum moisture content and required temperature and humidity conditions.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Manufacturer: Subject to compliance with requirements, provide high pressure decorative laminates by Formica, Nevamar, Pionite, Wilsonart, OR approved equal.

B. Refer to Section 066550, Solid Surfacing, for all countertops with integral backsplash.

2.02 MATERIALS

A. ARCHITECTURAL CABINETS AND SHELVING UNITS, LAMINATE CLAD: Comply with the following requirements:

Grade: Custom.

Construction: Semi-Reveal Overlay. Panel Type Construction.

Note: 1. All construction shall be marine grade plywood.
2. All cabinets over 36" wide to have 3/4" continuous top.
4. Shelving units over 33" wide shall have vertical divider support or reinforced.
5. Drawer bottoms over 24" wide shall be reinforced.
6. Cabinets shall have a separate and continuous pressure treated sub-base. Cabinet sides to floor will not be acceptable.

Plastic Laminate for Exposed and Semi-Exposed Surfaces: VGS-28 for horizontal surfaces and vertical surfaces.

Edge Treatment: Doors, drawers, and open shelving faces shall receive 3mm PVC banding, machine applied with waterproof hot melt adhesive with external edges and outside corners machine profiled to 1/8" radius for safety; Cabinet bodies and shelving shall receive 1mm PVC banding, machine applied with waterproof hot melt adhesive. Shelves in closed cabinets shall have 1mm PVC banding on all four sides. Shelving in open cabinets shall have 3mm PVC edge banding on front and back edges. Sides shall be 1mm PVC edge banding. Cabinet bodies in open cabinets shall have 3mm PVC edge banding.

Concealed Surfaces: 120 gram minimum Thermofused Melamine finish. Color to be selected by Architect.

Colors: To be selected by Architect. PVC color selections shall include wood grains and patterns, and ***not*** be limited to stock colors. See Finish Plans for Color Legend.

Comply with AWI Section 400 and its Division 400B.

B. ARCHITECTURAL CABINET TOPS: Solid surfacing:

Grade: Custom.

Comply with AWI Section 400 and its Division 400C.

Grommets: Provide one (1) 2½" grommet by Doug Mockett & Co. Inc. (800-523-1269) for each 48" length of workstation countertop or as shown on drawings. Locations to be determined in the field by Owner.

Note: 1. Counter tops to be 1/2" solid surfacing over 3/4" marine grade plywood with 1 1/4" built-up front edge up to 36" wide.
2. All counter tops to receive a backer sheet.
3. Exposed corners shall have 1½" radius.
4. Tops over 36" wide to receive 3/4" continuous top with backer sheet.

C. WOOD FRAMES FOR MIRRORS: Provide stain grade maple hardwood for mirror frames in restrooms. See drawings for locations.

D. CABINET HARDWARE AND ACCESSORY MATERIALS

Concealed Hinges: Grass 3000 Series, self closing, 110E swing, 2 per door and 4 per door on units over 60" high.

Metal Drawer Slides: BHMA A156.9, Zargen Drawer Slide System.
Box Drawer Slides (Grade 1HD-100): For drawers not more than 6 inches high and 24 inches wide.

Metal Drawer Sides: Height shall be within 1" of depth of face of drawer.

Pulls: Hafele, Item #117.31.436 (153mm x 30mm x 128mm); matte chrome. One per door or drawer.

Shelf Pins: 5mm pin holes with dual pin, anti tip shelf supports suitable for 3/4" or 1" shelving. 32mm line bore holes with double pin reinforced supports tested for over 250 lbs. with anti-lift supports to provide a non-tip feature suitable for 3/4" or 1" thick shelving.

Locks: All top drawers shall receive 5-disc tumbler, cam type with bright nickel finish. Provide additional locks where noted on drawings.

E. FASTENERS AND ANCHORS:
1. Screws: Select material, type, size and finish required for each use. Comply with FS FF-S-111 for applicable requirements.
2. Nails: Select material, type, size and finish required for each use. Comply with FS FF-N-105 for applicable requirements.
3. Anchors: Select material, type, size and finish required by each substrate for secure anchorage. Provide non-ferrous metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion-resistance. Provide toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts and anchors, as required, to be set into concrete or masonry work for subsequent millwork anchorage.

2.03 FABRICATION, GENERAL

A. Wood Moisture Content: Comply with requirements of referenced quality standard for moisture content of lumber at time of fabrication and for relative humidity conditions in the installation areas.

B. Fabricate millwork to dimensions, profiles, and details indicated with openings and mortises precut, where possible, to receive hardware and other items and work.

C. Complete fabrication, assembly, finishing, hardware application, and other work before shipment to project site to maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

D. Pre-Cut Openings: Fabricate architectural millwork with pre-cut openings, where possible, to receive hardware, appliances, plumbing fixtures, electrical work and similar items. Locate openings accurately and use templates or roughing-in diagrams for proper size and shape. Smooth edges of cutoffs and, where located in countertops and similar exposures seal edges of cutouts with a water-resistant coating. Exposed openings to receive plastic grommets.

E. Measurements: Before proceeding with fabrication of millwork required to be fitted to other construction, obtain field measurements and verify dimensions and shop drawing details as required for accurate fit.

PART 3 - EXECUTION

3.01 PREPARATION

A. Condition millwork to average prevailing humidity conditions in installation areas prior to installing.

B. Prior to installation of architectural millwork, examine shop fabricated work for completion, and complete work as required, including back priming and removal of packing.

3.02 INSTALLATION

A. Install millwork plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level (including tops); and with no variations in flushness of adjoining surfaces.

B. Scribe and cut millwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

C. Anchor millwork to anchors or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with millwork, and matching final finish where transparent finish is indicated.

D. Cabinets: Install without distortion so that doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated.

E. Tops: Anchor securely to base units and other support systems as indicated.

3.03 ADJUSTMENT, CLEANING, FINISHING, AND PROTECTION

A. Repair damaged and defective millwork where possible to eliminate defects functionally and visually; where not possible to repair replace millwork. Adjust joinery for uniform appearance.

B. Clean, lubricate and adjust hardware.

C. Clean millwork on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

D. Complete the finishing work specified as work of this section, to whatever extent not completed at shop or prior to installation of millwork.

E. Provide final protection and maintain conditions, in a manner acceptable to Fabricator and Installer, which ensures architectural millwork being without damage or deterioration at time of substantial completion.

END OF SECTION 064123

SECTION 066510 - SOLID SURFACE FABRICATIONS

PART 1 — GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following horizontal and trim solid surface product types:
   1. Windowsills
   2. Countertops

B. Related Sections include the following:
   1. Division 6 Section “Rough Carpentry” for Blocking.
   2. Division 15 Section “Plumbing Fixtures.”

1.03 DEFINITION

A. Solid surface is defined as nonporous, homogeneous material maintaining the same composition throughout the part with a composition of acrylic polymer, aluminum trihydrate filler and pigment.

1.04 SUBMITTALS

A. Shop drawings:
   1. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices and other components.
      a. Show full-size details, edge details, thermoforming requirements, attachments, etc.
      b. Show locations and sizes of furring, blocking, including concealed blocking and reinforcement specified in other Sections.
      c. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers, waste receptacle and other items installed in solid surface.

B. Samples:
   1. For each type of product indicated.
      a. Submit minimum 6-inch by 6-inch sample in specified gloss.
      b. Cut sample and seam together for representation of inconspicuous seam.
      c. Indicate full range of color and pattern variation.
   2. Approved samples will be retained as a standard for work.

C. Product data:
   1. Indicate product description, fabrication information and compliance with specified performance requirements.

D. Product certificates:
   1. For each type of product, signed by product manufacturer.

E. Fabricator/installer qualifications:
   1. Provide copy of certification number.

F. Manufacturer certificates:
   1. Signed by manufacturers certifying that they comply with requirements.

G. Maintenance data:
   1. Submit manufacturer’s care and maintenance data, including repair and cleaning instructions.
      a. Maintenance kit for finishes shall be submitted.
   2. Include in project closeout documents.

1.05 QUALITY ASSURANCE

A. Qualifications:
   1. Shop that employs skilled workers who custom fabricate products similar to those required for this project and whose products have a record of successful in-service performance.

B. Fabricator/installer qualifications:
   1. Work of this section shall be by a certified fabricator/installer, certified in writing by the manufacturer.

C. Applicable standards:
   1. Standards of the following, as referenced herein:
      a. American National Standards Institute (ANSI)
      b. American Society for Testing and Materials (ASTM)
      c. National Electrical Manufacturers Association (NEMA)
      d. NSF International
   2. Fire test response characteristics:
      a. Provide with the following Class A (Class I) surface burning characteristics as determined by testing identical products per UL 723 (ASTM E84) or another testing and inspecting agency acceptable to authorities having jurisdiction:
         1) Flame Spread Index: 25 or less.
         2) Smoke Developed Index: 450 or less.

D. Coordination drawings:
   1. Shall be prepared indicating:
      a. Plumbing work.
      b. Electrical work.
      c. Miscellaneous steel for the general work.
      d. Indicate location of all walls (rated and non-rated), blocking locations and recessed wall items, etc.
   2. Content:
      a. Project-specific information, drawn accurately to scale.
      b. Do not base coordination drawings on reproductions of the contract documents or standard printed data.
      c. Indicate dimensions shown on the contract drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements.
      d. Provide alternate sketches to designer for resolution of such conflicts.
         1) Minor dimension changes and difficult installations will not be considered changes to the contract.

E. Drawings shall:
   1. Be produced in 1/2-inch scale for all fabricated items.

F. Drawings must be complete and submitted to the architect within 60 days after award of contract for record only.
   1. No review or approval will be forthcoming.
   2. Coordination drawings are required for the benefit of contractor's fabricators/installers as an aid to coordination of their work so as to eliminate or reduce conflicts that may arise during the installation of their work.

G. Pre-installation conference:
   1. Conduct conference at project site to comply with requirements in Division 1.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver no components to project site until areas are ready for installation.

B. Store components indoors prior to installation.

C. Handle materials to prevent damage to finished surfaces.
   1. Provide protective coverings to prevent physical damage or staining following installation for duration of project.

1.07 WARRANTY

A. Provide manufacturer's warranty against defects in materials.
   1. Warranty shall provide material and labor to repair or replace defective materials.
   2. Damage caused by physical or chemical abuse or damage from excessive heat will not be warranted.

B. Optional Installed Warranty:
   1. To qualify for the optional Installed Warranty, fabrication and installation must be performed by a DuPont Certified Fabrication/Installation source who will provide a brand plate for the application.
   2. This warranty covers all fabrication and installation performed by the certified/approved source subject to the specific wording contained in the Installed Warranty Card.

C. Manufacturer's warranty period:
   1. Ten years from date of substantial completion.

1.08 MAINTENANCE

A. Provide maintenance requirements as specified by the manufacturer.

PART 2 — PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers:
   1. Subject to compliance with requirements, provide products by one of the following:
      a. Corian® surfaces from the DuPont company, LG HiMacs OR Approved Equal.

2.02 MATERIALS

A. Solid polymer components
   1. Cast, nonporous, filled polymer, not coated, laminated or of composite construction with through body colors meeting ANSI Z124.3 or ANSI Z124.6, having minimum physical and performance properties specified.
   2. Superficial damage to a depth of 0.010 inch (.25 mm) shall be repairable by sanding and/or polishing.

B. Thickness:
   1. 1/2 inch with 1 1/4" built-up front edge

C. Edge treatment:
   1. 1/16" eased edges

I. Performance characteristics:

Property	Typical Result	Test
Tensile Strength	6,000 psi	ASTM D 638
Tensile Modulus	1.5 x 10^{-6} psi	ASTM D 638
Tensile Elongation	0.4% min.	ASTM D 638
Flexural Strength	10,000 psi	ASTM D 790
Flexural Modulus	1.2 x 10^{-6} psi	ASTM D 790

Hardness	>85 56	Rockwell "M" Scale; ASTM D 785 Barcol Impressor; ASTM D 2583
Thermal Expansion	3.02 x 10^{-5} in./in./°C (1.80 x 10^{-5} in./in./°F)	ASTM D 696
Gloss (60° Gardner)	5–75 (matte—highly polished)	ANSI Z124
Light Resistance	(Xenon Arc) No effect	NEMA LD 3-2000 Method 3.3
Wear and Cleanability	Passes	ANSI Z124.3 & Z124.6
Stain Resistance: Sheets	Passes	ANSI Z124.3 & Z124.6
Fungus and Bacteria Resistance	Does not support microbial growth	ASTM G21&G22
Boiling Water Resistance	No visible change	NEMA LD 3-2000; Method 3.5
High Temperature Resistance	No change	NEMA LD 3-2000; Method 3.6
Izod Impact	0.28 ft.-lbs./in. of notch	ASTM D 256; (Notched Specimen) (Method A)
Ball Impact Resistance: Sheets	No fracture—1⁄2 lb. ball: 1⁄4" slab—36" drop 1⁄2" slab—144" drop	NEMA LD 3-2000 Method 3.8
Weatherability	ΔE^*_{94}<5 in 1,000 hrs.	ASTM G 155
Specific Gravity †	1.7	
Water Absorption	Long-term 0.4% (3⁄4") 0.6% (1⁄2") 0.8% (1⁄4")	ASTM D 570
Toxicity	99 (solid colors) 66 (patterned colors)	Pittsburgh Protocol Test ("LC50"Test)
Flammability	All colors (Class I and Class A)	ASTM E 84, NFPA 255 &UL 723
Flame Spread Index	<25	
Smoke Developed Index	<25	

† Approximate weight per square foot: 1⁄4" (6 mm) 2.2 lbs., 1⁄2" (12.3 mm) 4.4 lbs.
Shapes meet or exceed the ANSI Z124.3 and ANSI Z124.6 standards for plastic sinks and lavatories.
NEMA results based on the NEMA LD 3-2000

2.03 ACCESSORIES

A. Joint adhesive:

1. Manufacturer's standard one- or two-part adhesive kit to create inconspicuous, nonporous joints.

B. Sealant:

1. Manufacturer's standard mildew-resistant, FDA-compliant, NSF 51-compliant (food zone — any type), UL-listed silicone sealant in colors matching components.

2.04 FACTORY FABRICATION

A. Shop assembly

1. Fabricate components to greatest extent practical to sizes and shapes indicated, in accordance with approved shop drawings and manufacturer's printed instructions and technical bulletins.
2. Form joints between components using manufacturer's standard joint adhesive without conspicuous joints.
   a. Reinforce with strip of solid polymer material, 2" wide.
3. Provide factory cutouts for plumbing fittings and bath accessories as indicated on the drawings.
4. Rout and finish component edges with clean, sharp returns.
   a. Rout cutouts, radii and contours to template.
   b. Smooth edges.

c. Repair or reject defective and inaccurate work.

B. Thermoforming:
1. Comply with manufacturer's data.
2. Heat entire component.
a. Material shall be uniform, between 275 and 325 degrees Fahrenheit during forming.
3. Form pieces to shape prior to seaming and joining.
4. Cut pieces to finished dimensions.
5. Sand edges and remove nicks and scratches.

2.05 FINISHES
A. Select from the manufacturer's standard color chart.
1. Colors – To be selected from Corian group C.

B. Finish:
1. Provide surfaces with a uniform finish.
a. Matte; gloss range of 5–20.

PART 3 — EXECUTION

3.01 EXAMINATION
A. Examine substrates and conditions, with fabricator present for compliance with requirements for installation tolerances and other conditions affecting performance of work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION
A. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.
1. Provide product in the largest pieces available.
2. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work.
a. Exposed joints/seams shall not be allowed.
3. Reinforce field joints with solid surface strips extending a minimum of 1 inch on either side of the seam with the strip being the same thickness as the top.
4. Cut and finish component edges with clean, sharp returns.
5. Rout radii and contours to template.
6. Anchor securely to base cabinets or other supports.
7. Align adjacent countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop.
8. Carefully dress joints smooth, remove surface scratches and clean entire surface.
9. Install countertops with no more than 1/8-inch (3 mm) sag, bow or other variation from a straight line.

3.03 REPAIR
A. Repair or replace damaged work which cannot be repaired to architect's satisfaction.

3.04 CLEANING AND PROTECTION
A. Keep components clean during installation.

B. Remove adhesives, sealants and other stains.

END OF SECTION 066510

PAGE LEFT BLANK INTENTIONALLY

SECTION 071326 - SHEET MEMBRANE WATERPROOFING

PART 1 - GENERAL

1.01 Product Data: Submit product data and general recommendations from waterproofing materials manufacturer, including data substantiating that materials comply with requirements.

1.02 Manufacturer: Obtain primary waterproofing materials of each type required from a single manufacturer, to greatest extent possible. Provide secondary materials only as recommended by manufacturer of primary materials.

1.03 Project Conditions: Proceed with work after substrate construction, openings, and penetrating work have been completed. Start waterproofing and associated work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturers' recommendations and warranty requirements.

PART 2 - PRODUCTS

2.01 Rubberized Asphalt Sheet Waterproofing: Self-adhering membrane of rubberized asphalt integrally bonded to polyethylene sheeting, formed into uniform flexible sheets of thickness shown, or not less than 56 mils if no thickness is shown, complying with the following:

A. Tensile Strength: 250 psi min; ASTM D 412.

B. Ultimate Elongation: 300 percent min; ASTM D 412.

C. Brittleness Temperature: minus 25 deg F (minus 32 deg C); ASTM D 746.

D. Hydrostatic Head Resistance: 150 feet min.

E. Water Absorption: Not more than 0.5 percent weight gain after 48 hours of immersion at 70 deg F (21 deg C); ASTM D 570.

F. Products: Subject to compliance with requirements, provide one of the following:

Bituthene; W. R. Grace & Co.
Mel-rol; W.R. Meadows, Inc.
Polyguard 650; Polyguard Products, Inc.
Miradri; Mirafi, Inc.

2.02 Roof Underlayment: 40 mil thick, self-adhering membrane polymer modified bituminous sheet material equal to “Ice and Water Shield” by W. R. Grace.

A. Tensile Strength: 250 psi; ASTM D 412.

B. Ultimate Elongation: 250 percent min; ASTM D 412.

C. Adhesion: 3.0; ASTM D 903.

D. Permeance: 0.05; ASTM E 96.

2.03 Auxiliary Materials: Provide the following materials:

A. Adhesives: Provide types of adhesive compound and tapes recommended by waterproofing sheet manufacturer, for bonding to substrate (if required), for waterproof sealing of seams in membrane, and for waterproof sealing of joints between membrane and flashings, adjoining surfaces and projections through membrane.

B. Primers: Provide type of concrete primer recommended by manufacturer of sheet waterproofing material for applications required.

C. Flashing Materials: Except as otherwise indicated, provide types of flexible sheet material for flashing as recommended by waterproofing sheet manufacturer.

PART 3 - EXECUTION

3.01 Preparation: Comply with manufacturer's instruction for surface preparation. Apply primer to concrete and masonry surfaces at rate recommended by manufacturer of primary waterproofing materials. Prime only area that will be covered by WP membrane in same working day; reprime areas not covered by WP membrane within 24 hours.

3.02 Installation: Comply with manufacturer's instructions for handling and installation of sheet waterproofing materials.

A. Coordinate installation of waterproofing materials and associated work to provide complete system complying with combined recommendations of manufacturers and installers involved in work. Schedule installation to minimize period of exposure of sheet waterproofing materials.

B. Extend waterproofing sheet and flashings as shown to provide complete membrane over area indicated to be waterproofed. Seal to projections through membrane and seal seams. Bond to vertical surfaces and also, where shown or recommended by manufacturer, bond to horizontal surfaces.

C. Install protection board over completed membrane, complying with manufacturer's recommendations for both waterproofing sheet and protection course materials.

3.03 Cleaning: After completion, remove any masking materials and stains from exposed surfaces caused by waterproofing installation. Provide protection of completed membrane during installation of work over membrane and throughout remainder of construction period.

END OF SECTION 071413

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.01 Extent of surfaces to receive water repellent include all architectural precast, brick veneer, existing brick and concrete surfaces.

1.02 Product Data: Submit manufacturer's specifications, installation instructions, general recommendations for water repellents, and test results of repellent penetrations on brick from site.

1.03 Weather and Substrate Conditions: Proceed with application of water repellent when weather conditions and substrate conditions are in accordance with manufacturer's printed instructions.

PART 2 - PRODUCTS

2.01 Isobutyltrialkoxy Silane: Provide “Chemtrete BSM-40" by Degussa Corp. OR by one of the following approved equals.

Pecora International Corp.
W.R. Meadows.

Note: If product other than basis for design is submitted, submit test data and comparison between basis for design and submitted product demonstrating the submitted product is equal or better.

2.03 Warranty: Provide ten (10) year warranty against water infiltration due to repellant failure.

PART 3 - EXECUTION

3.01 Test Application: Prior to performance of water repellent work, including bulk purchase/delivery of products, prepare a small application in an unobtrusive location and in a manner acceptable to Architect, for purpose of demonstrating final effect (visual and physical/chemical) of planned installation. Proceed with work only after Architect's acceptance of test application, or as otherwise directed. Provide fugitive dye.

3.02 Clean substrate of substances which might interfere with penetration/adhesion of water repellents. Test for moisture content, in accordance with repellent manufacturer's instructions, to ensure that surface is sufficiently dry.

3.03 Coordination with Sealants: Where feasible, delay application of water repellents until installation of sealants has been completed in joints adjoining surfaces to be coated with repellent.

3.04 Protect adjoining work, including sealant bond surfaces, from spillage or blow-over of water repellent. Comply with manufacturer's recommendations.

3.05 Installation: Apply a heavy saturation spray coating of water repellent on surfaces indicated for treatment using low pressure spray equipment. Comply with manufacturer's instructions.

3.06 Apply a second saturation spray coating, repeating first application. Comply with manufacturer's instructions for limitations on drying time between coats.

END OF SECTION 071900

PAGE LEFT BLANK INTENTIONALLY

SECTION 072100 - BUILDING INSULATION

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes thermal insulation, acoustical insulation, and exterior wall insulation as indicated and/or specified complete.

B. Related Sections:

1- Division 01 – General Requirements

2- Division 07 – 072119 Foam In Place Insulation

3- Divisions 21 through 23

1.02 Fire Performance Characteristics: Provide insulation materials identical to those whose indicated fire performance characteristics have been determined per ASTM E 119, ASTM E 84, and ASTM E 136, as applicable, by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing and inspecting organization.

1.03 SUBMITTALS:

A. Submit product data for each form and type of insulation indicated.

PART 2 - PRODUCTS

2.01 Roof Insulation (R-Value = R-30 Min):

Polyurethane Spray Foam Insulation: Icynene ProSeal (MD-C-200v3) OR Approved Equal Spray Foam Insulation: Medium-density, HFC 365/227 blown, conforming to the following:

A. Thermal Resistance (for 1 inch of material) (R-Value/inch @75 deg F): ASTM C 518; 7.1 hr.sq ft.degree F/BTU

B. Air Permeance (for 1 inch of material): ASTM E 2178: less than 0.02 L/s.m^2 @75 Pa

C. Water Vapor Transmission (for 1.5 inches of material): ASTM E 96; 0.97 perm

D. Resistance to Fungal Growth: ASTM C 1338: no growth

E. Product Emissions: Collaborative for High Performance Schools (CHPS) “Low-emitting” material per CA Section 01350 criteria.

F. Flame Spread and Smoke Developed Rating: ASTM E 84

1	Flame Spread:	25
2	Smoke Development:	300

2.02 Spray Foam Insulation (R-Value = R-19.5 Min):

Polyurethane Spray Foam Insulation: Icynene ProSeal (MD-C-200v3) OR Approved Equal Spray Foam Insulation: Medium-density, HFC 365/227 blown, conforming to the following:

A. Thermal Resistance (for 1 inch of material) (R-Value/inch @75 deg F): ASTM C 518; 7.1 hr.sq ft.degree F/BTU

B. Air Permeance (for 1 inch of material): ASTM E 2178: less than 0.02 L/s.m^2 @75 Pa

C. Water Vapor Transmission (for 1.5 inches of material): ASTM E 96; 0.97 perm

D. Resistance to Fungal Growth: ASTM C 1338: no growth

E. Product Emissions: Collaborative for High Performance Schools (CHPS) “Low-emitting” material per CA Section 01350 criteria.

F. Flame Spread and Smoke Developed Rating: ASTM E 84

1	Flame Spread:	25
2	Smoke Development:	300

2.03 Thermal Barrier for Polyurethane Spray Insulation: JM Spider Insulation manufactured by Johns Manville OR approved equal. Spray foam insulation to be sprayed ***over*** spray poly foam (SPF) insulation providing a thermal barrier and shall conform with the following:

A. Complying with ASTM E-84 and ASTM E-136.

B. At 1.8 pcf density and ≥ 2" thickness meets International Building Code and ICC ES criteria for use as an ignition barrier over foamed plastic.

2.04 Acoustical Insulation:

A. Mineral fiber sound batts, R-11, unfaced (non-combustible). Flame spread - 25 maximum as tested by ASTM # 84-75.

B. Acoustical insulation is required above ceilings at toilets, unless "full height" sound insulated walls are specified. Vinyl backed insulation shall be used in open air plenum spaces. STC rating shall be 45 to 51 in walls and ceilings.

2.05 Perimeter Fire-Containment Systems (Fire Safing): Where indicated for gaps between the perimeter edge of fire-resistance-rated floor assemblies and non-fire-resistance-rated exterior curtains walls, provide a perimeter fire-containment system with the fire-test-response characteristics indicated, as determined by testing identical systems per UL 2079 by UL and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate makings of applicable testing and inspecting agency.

2.05 Vinyl Faced Mineral Fiber Blanket/Batt Insulation (At Roof – R-30, at Walls – R-20): ASTM C 665 for Type II, Class A, (blankets with vapor-retarder membrane facing with flame spread of 25 or less); vapor-retarder membrane on one face; and as follows: (Note: Un-faced batts may be used when in conjunction with a vapor barrier.)

A. Mineral Fiber Type: Fibers manufactured from glass or slag.

B. Combustion Characteristics: Unfaced materials passes ASTM E 136 test.

C. Surface Burning Characteristics: Maximum flame spread and smoke developed values of 25 and 50, respectively.

D. Perm Rating: 0.1 Perms.

PART 3 - EXECUTION

3.01 GENERAL: Comply with insulation manufacturer's instructions for installation of insulation.

A. Support insulation units by adhesive or mechanical anchorage or both as applicable to location and conditions indicated.

3.02 INSTALLATION

A. Batt Insulation: Provide Batt insulation as indicated. Install insulation with edges butted snugly, leaving no open areas. Support securely with staples, clips, tape or fasteners, as required. Install in accordance with the manufacturer's directions and recommendations.
   1. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage, to provide permanent placement and support of units.
   2. Set vapor barrier faced units with vapor barrier to outside of construction, except as otherwise shown.
   3. At interior ceilings, where indicated, install on top of drywall or acoustical tile, as shown, fastening securely. Do not install insulation over light fixtures. Maintain 3" clearance from all light fixtures.
   4. At exterior soffits and ceilings, install on cross runners. Wire tie and fasten to prevent sag.

B. Wall Insulation:
   1. Install as per manufacturer's specifications, using licensed and approved installers.

END OF SECTION 072100

PAGE LEFT BLANK INTENTIONALLY

SECTION 072600 - VAPOR RETARDERS

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. Polyethylene vapor retarders.
2. Reinforced-polyethylene vapor retarders.
3. Fire-retardant, reinforced-polyethylene vapor retarders.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for under-slab vapor retarders.
2. Section 072100 "Thermal Insulation" for vapor retarders integral with insulation products.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each product, for tests performed by a qualified testing agency.

PART 2 - PRODUCTS

2.1 POLYETHYLENE VAPOR RETARDERS

A. Polyethylene Vapor Barrier: ASTM D 4397, **10-mil** thick sheet, with maximum permeance rating of 0.1 perm.

2.2 SOIL GAS BARRIER (Basis of Design – PERMINATOR EVOH by W.R. Meadows) or approved equal

A. Gas barrier membrane shall be a seven layer co-extruded barrier manufactured from polyethylene and ethylene vinyl alcohol (EVOH) resins, meeting the shall meet the following minimum performance requirements:

1. Maximum Water Vapor Permeance (ASTM E154 Sections 7, 8, 11, 12, 13, by ASTM E96, Method B or ASTM F1249, ASTM D 4397)

a. As received: 0.0098 perms.

b. After Wetting and Drying: 0.0079 perms.

c. Resistance to Plastic Flow and Temperature: 0.0079 perms

d. Effect Low Temperature and Flexibility: 0.0097 perms.

e. Resistance to Deterioration from Organisms and Substances in Contacting Soil: 0.0113 perms.

2. Puncture Resistance, ASTM D1709: 2,600 grams.

3. Tensile Strength, ASTM E154, Section 9: 58 Lb. Force/Inch.

4. Radon Diffusion Coefficient, k124/02/95: $<1.1 \times 10^{-13}$ m^2/s.

5. Methane Permeance, ASTM D1434: 3.68×10^{-12} GTR.

6. Aqueous Phase Film Permeance

a. Benzene Permeance: 1.57×10^{-10} m/s.

b. Toluene Permeance: 2.18×10^{-10} m/s.

c. Ethylbenzene Permeance: 1.71×10^{-10} m/s.

d. M & P Xylenes Permeance: 1.62×10^{-10} m/s.

e. O Xylene Permeance: 1.53×10^{-10} m/s.

2.3 ACCESSORIES

A. Vapor-Retarder Tape: Pressure-sensitive tape of type recommended by vapor-retarder manufacturer for sealing joints and penetrations in vapor retarder.

B. Adhesive for Vapor Retarders: Product recommended by vapor-retarder manufacturer and has demonstrated capability to bond vapor retarders securely to substrates indicated.

C. Vapor-Retarder Fasteners: Pancake-head, self-tapping steel drill screws; with fender washers.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean substrates of substances that are harmful to vapor retarders, including removing projections capable of puncturing vapor retarders.

3.2 INSTALLATION OF VAPOR RETARDERS ON FRAMING

A. Place vapor retarders on side of construction indicated on Drawings.

B. Extend vapor retarders to extremities of areas to protect from vapor transmission. Secure vapor retarders in place with adhesives, vapor retarder fasteners, or other anchorage system as recommended by manufacturer. Extend vapor retarders to cover miscellaneous voids in insulated substrates, including those filled with loose-fiber insulation.

C. Seal vertical joints in vapor retarders over framing by lapping no fewer than two studs and sealing with vapor-retarder tape according to vapor-retarder manufacturer's written instructions. Locate all joints over framing members or other solid substrates.

D. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor retarders with vapor-retarder tape to create an airtight seal between penetrating objects and vapor retarders.

E. Repair tears or punctures in vapor retarders immediately before concealment by other work. Cover with vapor-retarder tape or another layer of vapor retarders.

3.3 INSTALLATION OF VAPOR RETARDERS IN CRAWL SPACES

A. Install vapor retarders over prepared grade. Lap joints a minimum of 12 inches and seal with manufacturer's recommended tape. Install second layer over pathways to equipment.

B. Extend vapor retarder over footings and seal to foundation wall or grade beam with manufacturer's recommended tape.

1. Extend vapor retarder vertically minimum 16 inches above top of footing.

C. Seal around penetrations such as utilities and columns in order to create a monolithic, airtight membrane at grade surface, perimeter, and all vertical penetrations.

3.4 PROTECTION

A. Protect vapor retarders from damage until concealed by permanent construction.

END OF SECTION 072600

PAGE LEFT BLANK INTENTIONALLY

SECTION 076100 – SHEET METAL ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General Terms and Conditions and Division 1 and Division 1 Specification Sections, apply to this Section. The requirements of the Florida Building Code (FBC) as it relates to this specification section shall apply. If any item or part of this section is discovered to not be in compliance with the FBC the architect is to be notified before proceeding with work required in this section.

1.2 SUMMARY

A. This Section includes the following custom-fabricated or on-site, roll-formed sheet metal roofing:

1. Standing-seam metal roofing.
2. **MBCI – Double-Lok Roof Panel** (coated ga. Steel): **Basis of design.**
3. Provide all necessary accessories, ridges, hips, valleys, eaves, rakes, corner, miscellaneous flashing, attachment clips and closure members to ensure a weather tight installation.
4.. Roofing assembly shall comply with the 2010 Florida Building Code, Chapter 15 and have Florida Product Approval and NOA certification equal to Miami Dade.

B. Related Sections include the following:

1. Division 5 Section "Steel Deck" for steel roof deck supporting sheet metal roofing.
2. Division 6 Section "Rough Carpentry" for wood sheathing required for batten-seam sheet metal roofing.
3. Division 7 Section "Building Insulation" for roof insulation.
4. Division 7 Section "Sheet Metal Flashing and Trim" for fascia, copings, flashings and other sheet metal work not part of sheet metal roofing.

1.3 REFERENCES

A. American Iron & Steel Institute (AISI) Specification for the Design of Coldformed Steel Structural Members.

B. ASTM A-653 & ASTM A924 Steel Sheet, Zinc Coated (Galvanized)

C. ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet & Plate

D. ASTM E-283/E-1680 (Air Infiltration Test)

E. ASTM E-331/E-1646 (Water Penetration Test)

F. ASTM E-1592 Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.

G. Coating Performance Reference Standards (see section for Finishes)

H. Roof System shall be designed to meet a UL Class 90 wind uplift in accordance with UL standard.

I. UL 2218 – Impact Resistance rated.

1.3 PERFORMANCE REQUIREMENTS

A. General: Provide complete sheet metal roofing system, including, but not limited to, custom-fabricated metal roof pans, on-site, roll-formed metal roof panels, cleats, clips, anchors and fasteners, sheet metal flashing and drainage components related to sheet metal roofing, fascia panels, trim, dry-in membrane underlayment, and accessories as indicated and as required for a weathertight installation.

B. Wind-Uplift Resistance: Provide custom-fabricated sheet metal roofing capable of resisting the following design negative uplift pressure. Provide clips, fasteners, and clip spacings of type indicated and with capability to sustain, without failure, a load equal to 3 times the design negative uplift pressure.

Coordinate with Structural Drawings for wind pressure requirements.

C. Wind-Uplift Resistance: Provide portable roll-forming equipment capable of producing sheet metal roofing assemblies that comply with UL 580 for Class 90 and FBC required wind-uplift resistance.

1. Maintain UL certification of portable roll-forming equipment for duration of sheet metal roofing work.

D. Thermal Movements: Provide sheet metal roofing that allows for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of sheet metal roofing thermal movements. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

E. Water Infiltration: Provide sheet metal roofing that does not allow water infiltration to building interior, with metal flashing and connections of sheet metal roofing lapped to allow moisture to run over and off the material.

F. System Movement: Accommodate movements due to thermal expansion and contraction, dynamic loading, and deflection of structural support system without damage to panel system or loss of weatherproofing capability.

G. Drainage: Provide positive drainage to exterior for moisture entering building enclosure or

condensation occurring within exterior building envelope.

H. Fabricate panels in full length with no transverse seams when panel lengths are 70'-0" or less. The use of transverse seams shall be acceptable for lengths greater than 7-0". Manufacturer's details for end lap conditions shall be strictly adhered to.

I. All panels shall be fastened to the framing members or underlayment with concealed stainless steel anchor clips designed to allow for thermal movement of the panels, except where specific fixed points are required.

J. Roof panels, anchor clips, closures, flashings and accessories shall be the product of a single manufacturer.

K. All trim and flashing components shall be fabricated in lengths of 12'-0" to minimize joint details. Allowance for thermal expansion and contraction of trim and flashing components shall be incorporated in their design.

L. Energy Performance: Provide metal roofing with a solar reflectance index (SRI) not less than **29** when calculated according to ASTME E 1980-01 based on testing identical products by a qualified test agency.

M. All external envelope enclosure products and assemblies shall meet the large missile impact criteria.

1.4 SUBMITTALS

A.. Product Data: Submit manufacturer’s current prodcut specifications and installation instructions.. Include details of construction relative tomaterials, dimensions of individual componets and profiles, and finishes.

B. Submit shop drawings and calculations on structural design, preformed metal roof deck and fasteners that are signed, sealed and dated by a Professional Engineer registered in the State of Florida, verifying that the structural framing and covering panel connections meet loading requirements and codes and that they are in compliance with requirements to resist wind uplift in accordance with FBC 2010 Edition.

C. Shop Drawings: Show fabrication and installation layouts of sheet metal roofing, including plans, elevations, and keyed references to termination points. Distinguish between shop- and field-assembled work. Include the following:

1. Details for forming sheet metal roofing, including seams and dimensions.
2. Details for joining and securing sheet metal roofing, including layout of fasteners, clips, and other attachments. Include pattern of seams.
3. Details of termination points and assemblies, including fixed points.
4. Details of expansion joints, including showing direction of expansion and contraction.

5. Details of roof penetrations.
6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counter-flashings.
7. Details of special conditions.
8. Details of connections to adjoining work.
9. Details of the following accessory items, at a scale of not less than 1-1/2 inches per 1'-0":

    a. Flashing and trim.
    b. Roof curbs.
    c. Valleys
    d. Ridges
    e. Gutters and gutter straps / anchors
    f. Fascia and Rakes
    g. Down spouts

D. Coordination Drawings: Roof plans drawn to scale and coordinating penetrations and roof-mounted items. Show the following:

1. Sheet metal roofing and attachments.
2. Purlins and rafters.
3. Roof-mounted items including roof hatches, equipment supports, pipe supports and penetrations, lighting fixtures, snow guards, and items mounted on roof curbs.

E. Samples for Initial Selection: For each type of sheet metal roofing indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection.

F. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:

1. Sheet Metal Roofing: 12 inches long by actual pan width, including finished seam. Include fasteners, clips, battens, closures, and other attachments.
2. Trim and Closures: 12 inches long. Include fasteners and other exposed accessories.
3. Accessories: 12-inch-long Samples for each type of accessory.

G. Roll-Forming Equipment Certificate: Issued by UL for manufacturer's portable roll-forming equipment designed for producing sheet metal roofing. Show expiration date no earlier than two months after scheduled end of sheet metal roofing.

H. Qualification Data: For Installer and fabricator.

I. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for sheet metal roofing portable roll-forming equipment. Include reports for structural performance.

J. Warranties: Special warranties specified in this Section.

K. Test Reports: Submit copies of test reports verifying performance capability of panel system.
1. ASTM E-1952.
2. Clip Fastener Pull Out Test and Calculations.
3. UL580 Class 90 Test Data.
4. Air Infiltration (ASTM E-1680 & E-283) and Water Penetration (ASTM E-1656 & E-331) Test Data.
5. Coating Performance Test Data (see Section 2.2 Finishes).
6. Wind Uplift UL90

L. Certified statement from the roofing panel manufacturer that the manufacturer has a minimum of ten (10) years experience in the roll forming process of metal roofing systems.

M. Certified statement from the roofing panel manufacturer that the roofing panel is tension leveled during the roll forming process.

N. Submit Florida Product Approval and NOA (Notice of Acceptance) meeting wind load requirements.

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications:

1. Manufacturer shall have a minimum of ten (10) years experience in the factory fabrication of metal roof panels.

2. Specification is based upon the products of Berridge Manufacturing Co.

A. Installer Qualifications: Fabricator of sheet metal roofing. Company specializing in the type of work required for this project, with not less than 2 years of documented experience.

B. Roll-Formed Sheet Metal Roofing Fabricator Qualifications: An authorized representative of roll-formed sheet metal roofing manufacturer for fabrication and installation of units required for this Project.

C. Sheet Metal Roofing Standard: Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.

D. Preliminary Roofing Conference: Before starting roof underlayment installation, conduct conference at Project site. Comply with requirements for preinstallation conferences in Division 1 Section "Project Management and Coordination. Review methods and procedures related to roof construction and sheet metal roofing including, but not limited to, the following:

1. Meet with Owner, Architect, Owner's insurer if applicable, sheet metal roofing Installer, manufacturer's representative for sheet metal roofing portable roll-forming equipment, Installer, and installers whose work interfaces with or affects

sheet metal roofing including installers of roof accessories and roof-mounted equipment.

2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review methods and procedures related to sheet metal roofing installation, including portable roll-forming equipment manufacturer's written instructions.
4. Examine sheathing conditions for compliance with requirements, including flatness and attachment to structural members.
5. Review flashings, special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal roofing.
6. Review governing regulations and requirements for insurance, certificates, and testing and inspecting if applicable.
7. Review temporary protection requirements for sheet metal roofing during and after installation.
8. Review roof observation and repair procedures after sheet metal roofing installation.
9. Inspection During Installation: Manufacturer's representative to review installation process and provide written report.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver metal coils or sheet metal roofing pans**,** components, and other sheet metal roofing materials so as not to be damaged or deformed. Package sheet metal roofing materials for protection during transportation and handling.

B. Unload, store, and erect sheet metal roofing materials in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack materials on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal coils and sheet metal roofing materials to ensure dryness. Do not store metal coils or sheet metal roofing materials in contact with other materials that might cause staining, denting, or other surface damage.

1. Store aluminum away from uncured concrete and masonry.

D. Protect strippable protective covering on sheet metal roofing from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal roofing installation.

1.7 FIELD MEASUREMENTS

A. Field measurements should be taken by the installer for verification of dimensional correctness in relationship to original plans, prior to providing manufacturer with a bill of material.

1.8 COORDINATION

A. Coordinate installation of roof curbs, equipment supports, and roof penetrations, which are specified in Division 7 Section "Roof Accessories."

B. Coordinate sheet metal roofing with rain drainage work, flashing, trim, and construction of parapets, walls, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Submit roofing panel manufacturer warranty for a minimum period of 20 years against perforation or structural failure of metal roofing panels and accessories.

B. Submit roofing panel manufacturer warranty for a minimum period of 5 years that the finish color will not change more than 5 NBS units in accordance with ASTM D 2244-78 and will not crack, peel or lose adhesion with the substrate for a period of 20 years.

C. Submit roofing panel manufacturer warranty for a minimum of 20 years specifying the metal panel system will be watertight with inspections by factory representative of job site conditions. Warranty will state if repairs are necessary, grantor will provide materials and labor to make repairs at no cost to Owner.

PART 2 - PRODUCTS

2.0 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:

1. Products: Subject to compliance with requirements, provide one of the products specified.
2. Design is based on Berridge Manufacturing Co. Berridge Zee Lock standing seam panel.
3. Other Manufacturers: Subject to compliance with these specifications.

2.1 ROOFING SHEET METALS

A. Metallic-Coated Steel Sheet Pre-painted with Coil Coating: Steel sheet metallic coated by the hot-dip process and pre-painted by the coil-coating process to comply with ASTM A 755/A 755M.

1. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 coating designation; structural quality.
2. Surface: Smooth, flat finish.
3. Thickness: 24 ga, unless otherwise indicated. 1
4. Seam Height: 2” minimum

5. Pan Width: 16” maximum

6. Exposed Finishes: Apply the following coil coating, as specified or indicated on Drawings:

   a. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

      1) Fluoropolymer Three-Coat System: Manufacturer's standard three-coat, thermocured system consisting of specially formulated inhibitive primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight, with a minimum total dry film thickness of 1.5 mil; complying with physical properties and coating performance requirements of AAMA 2605, except as modified below:

      2) Color: As selected from manufacturer's full range of standard colors.

   b. Factory Prime Coating: Where painting after installation is indicated, provide pretreatment and white or light-colored, factory-applied, baked-on epoxy primer coat; with a minimum dry film thickness of 0.2 mil.

2.2 UNDERLAYMENT MATERIALS

A. Self Adhering Underlayment Membrane, ASTM D1970, 60 mils thick minimum, consisting of glass-fiber-mat reinforcing and SBS-modified asphalt, granule faced, with Release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
As per manufacturers recommendations and FL Product Approval/NOA.

B. Un-perforated asphalt saturated roof felt #30: ASTM D-4869, Type IV, ASTM D-226, Type II
As per manufacturers recommendations and FL Product Approval/NOA.

C. Slip Sheet: Building paper, minimum 5 lb/100 sq. ft., rosin sized.

2.3 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for a complete roofing system and as recommended by fabricator for sheet metal roofing.

B. Fasteners: Self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.

   1. Exposed Fasteners: Heads matching color of sheet metal roofing by means of plastic caps or factory-applied coating.

2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws with hex washer head.
3. Blind Fasteners: High-strength aluminum or stainless-steel rivets.

C. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.

D. Elastomeric Joint Sealant: ASTM C 920, of base polymer, type, grade, class, and use classifications required to produce joints in sheet metal roofing that will remain weathertight and as recommended by roll-formed sheet metal roofing manufacturer for installation indicated.

2.4 ACCESSORIES

A. Sheet Metal Roofing Accessories: Provide components required for a complete sheet metal roofing assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, gutters, gutter anchors, down spouts and similar items. Match material and finish of sheet metal roofing, unless otherwise indicated.

B. Steel Flashing and Trim: Formed from 0.0179-inch-thick, zinc-coated (galvanized) steel sheet or aluminum-zinc alloy-coated steel sheet pre-painted with coil coating. Provide flashing and trim as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent sheet metal roofing.

C. Portable Roll-Forming Equipment: Manufacturer's standard UL-certified equipment capable of forming sheet metal roofing in profiles indicated.

1. Manufacturers:

a. Berridge Manufacturing Company. **Basis of Design**
b. Fabral, Inc.
c. Flexospan Steel Buildings, Inc.
d. Metal-Fab Manufacturing, LLC.
e. Morin Corporation; a Metecno Group Company.

2.5 FABRICATION

A. General: Custom fabricate sheet metal roofing to comply with details of “Berridge Zee Lock” panel shown and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions (pan width and seam height), geometry, metal thickness, and other characteristics of installation indicated. Fabricate sheet metal roofing and accessories at the shop to greatest extent possible.

B. General: Fabricate roll-formed sheet metal roofing panels to comply with details shown and roll-formed sheet metal roofing manufacturer's written instructions.

C. Fabricate sheet metal roofing to allow for expansion in running work sufficient to prevent leakage, damage, and deterioration of the Work. Form exposed sheet metal work to fit substrates without excessive oil canning, buckling, and tool marks, true to line and levels indicated, and with exposed edges folded back to form hems.

1. Lay out sheet metal roofing so cross seams, when required, are made in direction of flow with higher pans overlapping lower pans. Stagger cross seams.
2. Fold and cleat eaves and transverse seams in the shop.
3. Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for leakproof construction.

D. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant (concealed within joints).

E. Sealant Joints: Where movable, nonexpansion-type joints are indicated or required to produce weathertight seams, form metal to provide for proper installation of elastomeric sealant, in compliance with SMACNA standards.

F. Metal Protection: Where dissimilar metals will contact each other, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturers of dissimilar metals or by fabricator.

G. Sheet Metal Accessories: Custom fabricate flashings and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Obtain field measurements for accurate fit before shop fabrication.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
3. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA standards.
4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
5. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" for application but not less than thickness of metal being secured.

2.6 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, sheet metal roofing supports, and other conditions affecting performance of work.

1. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored, and that provision has been made for flashings, and penetrations through sheet metal roofing.
3. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.

B. Examine roughing-in for components and systems penetrating sheet metal roofing to verify actual locations of penetrations relative to seam locations of sheet metal roofing before sheet metal roofing installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Lay out and before installation of sheet metal roofing. Space fasteners as required to resist design uplift.

B. Install flashings and other sheet metal to comply with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim."

C. Apply slip sheet over underlayment before installing sheet metal roofing as per manufacturer’s recommendations.

3.3 INSTALLATION, GENERAL

A. General: Install sheet metal roofing perpendicular to purlins or supports. Anchor sheet metal roofing and other components of the Work securely in place, with provisions for thermal and structural movement. Install fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for a complete roofing system and as recommended by fabricator for sheet metal roofing.

1. Field cutting of sheet metal roofing by torch is not permitted.
2. Rigidly fasten eave end of sheet metal roofing and allow ridge end free movement due to thermal expansion and contraction. Predrill roofing.
3. Provide metal closures at peaks and each side of ridge and hip caps.
4. Flash and seal sheet metal roofing with weather closures at eaves, rakes, and at perimeter of all openings. Fasten with self-tapping screws.
5. Locate and space fastenings in uniform vertical and horizontal alignment.
6. Install ridge and hip caps as sheet metal roofing work proceeds.
7. Locate roofing splices over, but not attached to, structural supports. Stagger roofing splices and end laps to avoid a four-panel lap splice condition.
8. Lap metal flashing over sheet metal roofing to allow moisture to run over and off the material.

B. Application of metal roofing will be over rigid insulation and protective board at pitch shown on drawings, convered with an underlayment and a rosin slip sheet or ice-water shield (per manufacturer's recommendations , FL Product Approval & NOA). Use required length fasteners to anchor to metal roof deck. Seal around each fastener.

C. Fasteners: Fasten panels to structural support with fasteners provided or approved by panel manufacturer. Install panels plumb, level, and true to line.

1. Steel Roofing: Use stainless-steel fasteners.

D. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by fabricator of sheet metal roofing or manufacturers of dissimilar metals.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Fascia: Align bottom of sheet metal roofing and fasten with blind rivets, bolts, or self-tapping screws. Flash and seal sheet metal roofing with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

3.4 CUSTOM-FABRICATED SHEET METAL ROOFING INSTALLATION

A. Fabricate and install work with lines and corners of exposed units true and accurate. Form exposed faces flat and free of buckles, excessive waves, and avoidable tool marks, considering temper and reflectivity of metal. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant. Fold back sheet metal to form a hem on concealed side of exposed edges, unless otherwise indicated.

1. Install cleats to hold sheet metal panels in position. Attach each cleat with two fasteners to prevent rotation.
2. Fasten cleats not more than 12 inches o.c.

B. Seal joints as shown and as required for leak-proof construction. Provide low-slope transverse seams using cleats where backup of moisture may occur.

1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, set joint members for 50 percent movement either way. Adjust setting proportionately for installation at higher ambient temperatures.

C. Provide expansion cleats in roof panels that exceed 30 feet in length.

D. Standing-Seam Roofing: Attach standing-seam metal pans to substrate with cleats, double-fastened at 12 inches o.c. Install pans reaching from eave to ridge before moving to adjacent pans. Lock each pan to pan below with transverse seam. Before pans are locked, apply continuous bead of sealant to top flange of lower pan. Crimp standing seams by folding over twice so cleat and pan edges are completely engaged.

1. Leave seams upright after crimping at ridges and hips.

E. Batten-Seam Roofing: Attach batten-seam metal pans to substrate with cleats, starting at eave and working upward toward ridge. Hold cleats in place with wood battens and fold edges of cleats over to hold pans. Hook each pan to pan below with transverse seam. After pans are in place and before batten cap is installed, apply continuous bead of sealant to top flange of each pan. Install batten cap covering wood batten and pan edges and fold batten cap and pan together.

1. Close batten ends with metal closure.

3.5 ON-SITE, ROLL-FORMED SHEET METAL ROOFING INSTALLATION

A. General: Install on-site, roll-formed sheet metal roofing to comply with sheet metal roofing manufacturer's written instructions for UL wind-uplift class indicated. Provide sheet metal roofing of full length from eave to ridge unless otherwise restricted by shipping limitations.

B. Standing-Seam Sheet Metal Roofing: Fasten sheet metal roofing to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
3. Before panels are joined, apply continuous bead of sealant to top flange of lower panel.
4. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging field-applied sealant.
5. Seamed Joint: Crimp standing seams with manufacturer-approved motorized seamer tool so cleat, sheet metal roofing, and field-applied sealant are completely engaged.

3.6 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete sheet metal roofing assembly including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing and trim that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

C. Pipe Flashing: Form flashing around pipe penetration and sheet metal roofing. Fasten and seal to sheet metal roofing as recommended by manufacturer.

3.7 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal roofing within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.8 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and strippable films, if any, as sheet metal roofing is installed. On completion of sheet metal roofing installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.

D. Replace panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

MANUFACTURER'S NOTICE OF INTENT TO ISSUE ROOF WARRANTY

Whereas _____
Herein called "Roofing Manufacturer" hereby gives to:

Owner _____

Address _____

Of its Notice of Intent to Issue the Roof Warranty, as specified in the Contract Documents issued by Clemons Rutherford & Associates.

Project _____

Address _____

When installed in accordance with manufacturer's instructions and the Contract Documents by a manufacturer approved installer, certified to install the manufacturers roofing system, identified as:

As the Authorized Representative of said Manufacturer, with the authority to make the above representations to the Owner, I hereby certify the above statements to the Owner.

Manufacturer: _____

Address: _____

Authorized Representative: _____

Signed: _____

Date: _____

By submitting this bid I hereby certify to Owner that a manufacturer approved roofer will be installing the roofing system.

Signed: _____

Date: _____

METAL ROOFING GUARANTEE

WHEREAS, of
(Roofing Contractor)

(Address)

AND WHEREAS of
(Roofing Manufacturer)

(Address)

herein called "The Roofing Team" hereby gives notice to:

OWNER:

ADDRESS:

of having performed the metal roofing and related work on the project. More specifically:

PROJECT:

ADDRESS:

Date of Guarantee Acceptance:

Designated Guarantee Period: **Twenty Year Period**

Date of Guarantee Expiration:

AND WHEREAS, the Roofing Team have contracted, either directly with the Owner, or indirectly with each other for the benefit of the Owner to guarantee said work as follows for the designated guarantee period.

A. The finish color coating will not crack or check, peel, blister, flake, chip, or otherwise loose adhesion, and will not chalk in excess of eight (8), or fade in excess of five (5) ENBS units. Color change determination shall be make in accordance with ASTM D-2244, paragraph 4.3.2.4, by comparing exposed panels and unexposed panels from a given batch.

B. Metal substrate shall not corrode or structurally fail within design loading conditions.

C. Leak-Free.

NOW THEREFORE, Roofing Team, defined as the material supplier and the installer, hereby guarantees, subject only to the terms, conditions and limitations herein set forth, that during guarantee period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of such work or materials as are necessary to correct defective workmanship or defective materials, and as are necessary to maintain said work during the guarantee period.

This guarantee is made subject to the following terms and conditions:

1. Specifically excluded from this guarantee are damages to the work caused by:

    a. Penetrations of the roof associated with vents, equipment or other causes if performed without prior approval from the Roofing Team. Such approval will not be unreasonably withheld.

    b. Failure of the building framing/structure in excess of design criteria.

    c. Lightning

    d. Fires

    e. Vandalism

    f. Corrosive, aggressive atmosphere such as chemical fumes, direct salt spray (defined as being within 1500 feet of saltwater), or rain water and condensation which contains alkaline, acid, chlorides, or sulfates that is significantly above or below what is considered to be normal. By accepting the contract for installation of the roof, the panel manufacturer and installer declare that the atmospheric conditions, at the time of their

bid, are within normal limits.

g. Hail

h. Other Acts of Gods.

2. When such work has been damaged by any of the foregoing causes, the guarantee shall be null and void until such damage has been repaired by the Roofing Team and until cost expense thereof has been paid by the Owner or by another responsible party so designated by the Owner.

3. The Roofing Team is responsible for any and all damage, deterioration, or failure for any reason of the work covered by this guarantee, except for those items specifically excluded above.

4. After reasonable investigation by the Owner, the Owner shall promptly notify Roofing Team of observed, known or suspected leaks, defects, or deterioration. The Roofing Team shall respond to all notifications within forty-eight (48) hours and to make all repairs as deemed reasonably necessary to correct said leaks or defects. Approval of such corrective work shall not be unreasonably withheld by the Owner.

5. In relation to the Weathertightness Warranty, the following shall apply. This guarantee shall not supersede any warranties or guarantee as a part of any construction or purchase contract between the Roofing Team and Owner, or any combination thereof, but shall operate in addition to all contractual guarantees and warranties available from the Roofing Team. This agreement shall not operate to restrict or cut off the Owner from any and all remedies and recourses lawfully available to him in cases of roofing failures. Specifically, this guarantee shall not operate to relieve Roofing Team of responsibility for performance of the original work in accordance with the requirements of contract directly with the Owner or a subcontract with the Owner's General Contractor. If any warranties or guaranties conflict, the most stringent in favor of the Owner shall take precedence. This warranty or guarantee does not cover any claims or actions for consequential, special, or incidental damages, or punitive damages, or other loss or expense, whether such claims may arise or be based upon tort (including negligence), strict liability contract or warranty, or any other cause of action, to the building, other property, contents or materials within the building project. Owner’s exclusive remedy pursuant to this guarantee or warranty shall be the repair or replacement of the roof system materials as provided herein.

   This joint warranty, comprised of the Materials Supplier and the Installer, shall commence upon final acceptance of the roof system by the Owner. There shall be no time within the twenty (20) year warranty period that either party is exempt from full responsibility of the specified conditions of the warranty.

   Should either party (Materials Supplier or Installer) for any reason fail to, or become incapable of honoring the specified warranty, the other party shall become wholly and solely responsible for

honoring the full extent of the specified warranty for the balance of the twenty (20) year period.

By signing the above, the Authorized Representative of said entities certifies and represents that he is an officer of the entity with the authority to contract and make the above representations to the Owner.

IN WITNESS HEREOF, this instrument has been duly executed on this

day of , 20 .

(SEAL) ROOFING CONTRACTOR

(Authorized Representative)

Sworn to and subscribed before me

this day of , 20 .

Notary Public

My commission expires:

(SEAL) ROOFING MANUFACTURER

(Authorized Representative)

Sworn to and subscribed before me

this day of , 20 .

Notary Public

My commission expires:

END OF SECTION 076100

PAGE LEFT BLANK INTENTIONALLY

SECTION 076200 - FLASHING & SHEET METAL

PART 1 - GENERAL:

Conform to profiles and sizes shown on drawings, and comply with "Architectural Sheet Metal Manual" by SMACNA, for each general category of work required.

Metal flashing and counter flashing.
Conductor Head and Downspouts.

Guarantee: Five-year maintenance guarantee stating that all work in this section not guaranteed under the roof warranty, will remain watertight for a period of 5-years from the date of project acceptance, co-signed by the General Contractor.

PART 2 - PRODUCTS:

Conductor Head and Downspouts: Provide 0.040 continuous pre-finished aluminum gutters and downspouts with baked enamel finish. Color shall be selected by Architect.

Solder: For use with steel or copper, provide 50-50 tin/lead solder (ASTM B 32), with rosin flux.

Fasteners: Same metal as flashing/sheet metal or other non-corrosive metal as recommended by sheet manufacturer. Match finish of exposed heads with material being fastened.

Bituminous Coating: SSPC-Paint 12, solvent-type bituminous mastic, nominally free of sulfur, compounded for 15-mil dry film thickness per coat.

Elastomeric Sealant: Generic type recommended by manufacturer of metal and fabricator of components being sealed and complying with requirements for joint sealants as specified in Section 07900 - Joint Sealers.

Epoxy Seam Sealer: 2-part noncorrosive metal seam cementing compound, recommended by metal manufacturer for exterior/interior nonmoving joints including riveted joints.

Reglets: Metal or plastic units of type and profile indicated, compatible with flashing indicated, noncorrosive.

Metal Accessories: Provide sheet metal clips, straps, anchoring devices, and similar accessory units as required for installation of work, matching or compatible with material being installed, noncorrosive, size and gage required for performance.

Mill Finish Aluminum: ASTM B 209, 3003-H14, with a minimum thickness of 0.040 inch, unless otherwise indicated.

Fabricated Units

Fabricate sheet metal with flat-lock seams; solder with type solder and flux recommended by manufacturer, except seal aluminum seams with epoxy metal seam cement and, where required for strength, rivet seams and joints.

Provide for thermal expansion of running sheet metal work by overlaps of expansion joints in fabricated work. Where required for water-tight construction, provide hooked flanges filled with polyisobutylene mastic for 1-inch embedment of flanges. Space joints at intervals of not more than 50 feet for steel, 24 feet for copper or stainless steel, or 30 feet for zinc alloy or aluminum. Conceal expansion provisions where possible.

PART 3 - EXECUTION:

Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.

A. Coat side of uncoated aluminum and stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim will contact wood, ferrous metal, or cementitious construction.

B. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene underlayment.

C. Bed flanges in thick coat of asphalt roofing cement where required for waterproof performance.

Anchor work in place with noncorrosive fasteners, adhesives, setting compounds, tapes and other materials and devices as recommended by manufacturer of each material or system. Provide for thermal expansion and building movements. Comply with recommendations of "Architectural Sheet Metal Manual" by SMACNA.

Seal moving joints in metal work with elastomeric joint sealants, complying with requirements specified in Division 7 Section "Joint Sealants."

Clean metal surfaces of soldering flux and other substances which could cause corrosion.

Nail flanges of expansion joint units to substrates at spacing of 6 inches o.c.

Composition Stripping: Cover flanges (edges) of work set on bituminous substrate with 2 courses of glass fiber fabric (ASTM D-1668) set in and covered with asphaltic roofing cement.

Performance: Water-tight and weatherproof performance of flashing and sheet metal work is required.

END OF SECTION 076200

SECTION 076310 – GUTTERS AND DOWNSPOUTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope:

1. Includes but not limited to:

a. Gutters and downspouts for both the low and high roofs.

PART 2 - PRODUCTS

2.01 DOWNSPOUTS

A. As shown on drawings, and if not shown on drawings, a minimum of 6" square and smooth finish 0.040 inch thick baked-on enamel aluminum including necessary elbows to match existing.

2.02 GUTTERS

A. 0.051 inch thick baked-on enamel aluminum, color to match metal roofing.

B. Hanger system shall be as detailed in Figure A, Page 41 of SMACNA Manual, 3rd Edition.

C. Cross-sectional configuration of gutter shall be Style G, Page 9 of SMACNA Manual, 3rd Edition, and match existing.

2.03 Downspouts, gutters, hangers, fasteners, and accessories shall be compatible material. Color to match metal roofing.

PART 3 - EXECUTION

3.01 Before starting work, verify governing dimensions at building. Inspect for conditions which would prevent installation of first class system. Do not install over improper conditions.

3.02 Furnish and install outlet tubes and gutter ends where required. Furnish and install expansion joints in runs exceeding 50'-0" and in runs which are restrained at both ends.

3.03 Join gutter sections according to Manufacturer's recommendations.

3.04 Lap joints in downSpouts at least 1-1/2 inches in direction of water flow.

3.05 Fabricate and install in accordance with SMACNA Manual, 3rd Edition.

3.06 Properly secure gutters and downspouts to withstand wind load of 130 mph.

3.07 At completion of this work, block downspouts and flood gutters in presence of Architect. Repair leaks and adjust gradients for proper drainage.

3.08 Coordinate installation requirements with Section 07600 - Flashing and Sheet Metal and Section 07610 - Metal Seam Roofing.

END OF SECTION 076310

PAGE LEFT BLANK INTENTIONALLY

SECTION 079200 - JOINT SEALERS

PART 1 - GENERAL

1.01 PRECONSTRUCTION FIELD TESTS: Prior to installation of joint sealers, field-test their adhesion to joint substrates per field adhesion test in AAMA Aluminum Curtain Wall Series No. 13.

1.02 SUBMITTALS: Submit product data, samples of each type and color of joint sealer required and certified test reports for joint sealers evidencing compliance with requirements.

1.03 COMPATIBILITY: Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under service and application conditions, as demonstrated by testing and field experience.

1.04 COLORS: Provide color of exposed joint sealers to match color of adjacent surface.

PART 2 - PRODUCTS

2.01 ELASTOMERIC SEALANT STANDARD: Provide manufacturer's standard chemically curing, elastomeric sealant of base polymer indicated, complying with ASTM C 920 requirements.

A. One-Part Nonacid-Curing Silicone Sealant: Type S, Grade NS, Class 25, Uses NT, M, G, A, and O. Additional capability, when tested per ASTM C 719, to withstand 35 percent movement in both extension and compression for a total of 70 percent movement as measured at time of application and still comply with other requirements of ASTM C 920.

B. One-Part Nonsag Urethane Sealant for Use NT: Type S; Grade NS; Class 25; and Uses NT, M, A, and O.

2.02 ACRYLIC SEALANT: Manufacturer's standard one-part nonsag, solvent-release-curing, acrylic terpolymer sealant complying with ASTM C 920 for Type S; Grade NS; Uses NT, M, G, A and O; except for selected test properties which are revised as follows:

Heat-aged hardness: 40-50
Weight loss: 15 percent
Max. cyclic movement capability: plus or minus 7.5 percent

2.03 SILICONE-EMULSION SEALANT: Manufacturer's standard one part, nonsag, mildew-resistant, paintable, silicone-emulsion sealant complying with ASTM C 834.

2.04 ACOUSTICAL SEALANT FOR CONCEALED JOINTS: Manufacturer's standard, nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic rubber sealant recommended for sealing interior concealed joints to reduce transmission of airborne sound.

2.05 FIRESTOP CAULKING AND PUTTY: Provide Firestop Putty or Adhesive Firestop Caulking/Sealant for fire sealing rated partitions at penetrations, junctions with roofing panels, and intersections at dissimilar materials. Firestop putty shall be Nelson FSP Firestop Putty as manufactured by Hevi-Duty/Nelson, OR Approved Equal. Adhesive Firestop caulking/sealant shall be Nelson CLK Adhesive Firestop Sealant as manufactured by Hevi-Duty/Nelson, OR Approved Equal. Materials furnished for firestopping shall comply with ASTM E-84 and ASTM E-814. Comply with manufacturer's instructions for installation and suitability for application.

2.06 FOAMED-IN-PLACE FIRE-STOPPING SEALANT: Two-part, foamed-in-place, silicone sealant for use as part of a through-penetration fire-stop system for filling openings around cables, conduit, pipes and similar penetrations through walls and floors, with fire-resistance rating indicated, per ASTM E 814; listed by UL or other testing and inspecting agency acceptable to authorities having jurisdiction.

2.07 ONE-PART FIRE-STOPPING SEALANT: One part elastomeric sealant formulated for use as part of a through-penetration fire-stop system for sealing openings around cables, conduit, pipes and similar penetrations through walls and floors, listed by UL or other testing and inspecting agency acceptable to authorities having jurisdiction.

2.08 SECURITY SEALANT:

A. Type 1 – Polyurethane Sealant (Pick Resistance): Comply with the following:
   1. Vulkem 116 by Tremco OR approved. One-part, moisture curing, gun grade polyurethane sealant.
   2. Sonolastic Ultra by Sonneborn OR approved equal. One-part, moisture-curing, aliphatic, nonsag, polyurethane sealant.

B. Type 2 – Epoxy Sealant (Pick Proof): Provide the following in all inmate areas. Comply with the following:
   1. Dynapoxy EP-1100 by Pecora Corporation OR approved equal. Two-part, non-sag chemically curing epoxy adhesive/sealant.
   2. Sikadur 31, Hi-Mod Gel by Sika Corporation OR approved equal. Two-part, 100% solids, solvent-free, moisture-tolerant, high-modulas, high strength, structural epoxy paste adhesive.

2.09 SEALANT BACKINGS, GENERAL: Nonstaining; compatible with joint substrates, sealants, primers and other joint fillers; approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

A. Elastomeric Tubing Joint-Fillers: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, capable of remaining resilient at temperatures down to -26 deg F (-15 deg C). Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth and otherwise contribute to optimum sealant performance.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing bond between sealant and joint filler or other materials at back of joint.

2.10 PRIMER: As recommended by joint sealer manufacturer where required for adhesion of sealant to joint substrates indicated.

2.11 ACCESSORY MATERIALS FOR FIRE-STOPPING SEALANTS: Forming, joint-fillers, packing and other accessory materials as required for installation of fire-stopping sealants.

PART 3 - EXECUTION

3.01 GENERAL: Comply with joint sealer manufacturers' instructions applicable to products and applications indicated.

3.02 INSTALLATION:

A. Elastomeric Sealant Installation Std: Comply with ASTM C 962.

B. Latex Sealant Installation Standard: Comply with ASTM C 790.

C. Acoustical Sealant Application Standard: Comply with ASTM C 919 for use of joint sealants in acoustical applications.

D. Installation of Fire-Stopping Sealant: Install sealant, including forming, packing and other accessory materials to fill openings around mechanical and electrical services penetrating floors and walls to provide fire-stops with fire resistance ratings indicated.

END OF SECTION 079200

PAGE LEFT BLANK INTENTIONALLY

SECTION 079500 - EXPANSION CONTROL

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. Interior expansion control systems.
   2. Exterior wall expansion control systems.

B. Related Requirements:
   1. Section 079200 "Joint Sealants" for liquid-applied joint sealants and for elastomeric sealants without metal frames.

1.3 SUBMITTALS

A. Shop Drawings: For each expansion control system specified. Include plans, elevations, sections, details, splices, blockout requirement, attachments to other work, and line diagrams showing entire route of each expansion control system. Where expansion control systems change planes, provide isometric or clearly detailed drawing depicting how components interconnect. Furnish a total of six (6) sets, five (5) hard copies and one (1) electronic copy.

B. Samples: For each exposed expansion control system and for each color and texture specified, full width by 6 inches (150 mm) long in size.
   1. Include manufacturer's color charts showing the full range of colors and finishes available for each exposed metal and elastomeric seal material.
   2. Fire-resistance ratings.

C. Product Test Reports: For each fire barrier provided as part of an expansion control system, for tests performed by a qualified testing agency.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. General: Provide expansion control systems of design, basic profile, materials, and operation indicated. Provide units with capability to accommodate variations in adjacent surfaces.
   1. Furnish units in longest practicable lengths to minimize field splicing. Install with hairline mitered corners where expansion control systems change direction or abut other materials.
   2. Include factory-fabricated closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous expansion control systems.

B. Coordination: Coordinate installation of exterior wall expansion control systems with roof expansion control systems to ensure that wall transitions are watertight. Roof expansion joint assemblies are specified elsewhere.

2.2 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: Where indicated, provide expansion control systems with fire barriers identical to those of systems tested for fire resistance per UL 2079 or ASTM E 1966 by a testing and inspecting agency acceptable to authorities having jurisdiction.
   1. Hose Stream Test: Wall-to-wall and wall-to-ceiling systems shall be subjected to hose stream testing.

B. Seismic Performance: Expansion control systems shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
   1. The term "withstand" means "the system will remain in place without separation of any parts when subjected to the seismic forces specified and the system will be fully operational after the seismic event."
   2. Component Importance Factor is 1.5.

2.3 INTERIOR EXPANSION CONTROL SYSTEMS

A. Manufacturers: Subject to compliance with requirements. Provide products by Construction Specialties, Inc. OR approved equal. (Basis of Design: Construction Specialties.)

B. Floor-to-Floor: Model SGP.

C. Floor-to-Wall: Model SGPW.

D. Wall-to-Wall: Model FWFC and FWFC-M.

E. Wall-to-Ceiling: Model FWFC and SCC.

2.4 EXTERIOR WALL EXPANSION CONTROL SYSTEMS

A. Manufacturers: Subject to compliance with requirements. Provide products by Construction Specialties, Inc. OR approved equal. (Basis of Design: Construction Specialties.)

B. Wall-to-Wall: Model SC.

C. Roof-to-Wall: Model SRJW.

2.5 MATERIALS

A. Aluminum: ASTM B 221 (ASTM B 221M), Alloy 6063-T5 for extrusions; ASTM B 209 (ASTM B 209M), Alloy 6061-T6 for sheet and plate.
   1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.

B. Compression Seals: ASTM E 1612; preformed elastomeric extrusions having an internal baffle system and designed to function under compression.

C. Cellular Foam Seals: Extruded, compressible foam designed to function under compression.

D. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist the passage of flame and hot gases through a movement joint and to meet performance criteria for required fire-resistance rating.

E. Moisture Barrier: Flexible elastomeric material.

F. Accessories: Manufacturer's standard anchors, clips, fasteners, set screws, spacers, and other accessories compatible with material in contact, as indicated or required for complete installations.

2.6 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.7 ALUMINUM FINISHES

A. Mill finish.

B. Clear Anodic Finish: AAMA 611, [AA-M12C22A41, Class I, 0.018 mm] [AA-M12C22A31, Class II, 0.010 mm] or thicker.

C. Color Anodic Finish: AAMA 611, [AA-M12C22A42/A44, Class I, 0.018 mm] [AA-M12C22A32/A34, Class II, 0.010 mm] or thicker.
1. Color: To be selected by Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces where expansion control systems will be installed for installation tolerances and other conditions affecting performance of work.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare substrates according to expansion control system manufacturer's written instructions.

B. Coordinate and furnish anchorages, setting drawings, and instructions for installing expansion control systems. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of expansion control systems.

3.3 INSTALLATION

A. Comply with manufacturer's written instructions for storing, handling, and installing expansion control systems and materials unless more stringent requirements are indicated.

B. Metal Frames: Perform cutting, drilling, and fitting required to install expansion control systems.
1. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.

2. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation. Notify Architect where discrepancies occur that will affect proper expansion control system installation and performance.
3. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.
4. Repair or grout blockout as required for continuous frame support using nonmetallic, shrinkage-resistant grout.
5. Install frames in continuous contact with adjacent surfaces.
   a. Shimming is not permitted.
6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches (75 mm) from each end and not more than 24 inches (600 mm) o.c.

C. Compression Seals: Apply adhesive or lubricant adhesive as recommended by manufacturer to both [frame interfaces] [sides of slabs] before installing compression seals.

D. Foam Seals: Install with adhesive recommended by manufacturer.

E. Terminate exposed ends of expansion control systems with field- or factory-fabricated termination devices.

F. Fire-Resistance-Rated Assemblies: Coordinate installation of expansion control system materials and associated work so complete assemblies comply with assembly performance requirements.
1. Fire Barriers: Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of joint, including transitions and field splices.

G. Moisture Barrier: Provide [at all exterior joints and]where indicated on Drawings. Provide drainage fittings at a maximum of 50 feet (15.2 m) or] where indicated on Drawings.

3.4 PROTECTION

A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.

B. Protect the installation from damage by work of other Sections. Where necessary due to heavy construction traffic, remove and properly store cover plates or seals and install temporary protection over expansion control systems. Reinstall cover plates or seals prior to Substantial Completion of the Work.

END OF SECTION 079500

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

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. Standard and custom hollow metal doors and frames.
2. Steel sidelight, borrowed lite and transom frames.
3. Louvers installed in hollow metal doors.
4. Light frames and glazing installed in hollow metal doors.

B. Related Sections:

1. Division 01 Section "General Conditions".
2. Division 01 Section "Closeout Procedures".
3. Division 04 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction.
4. Division 08 Section “Flush Wood Doors”.
5. Division 08 Section "Glazing" for glass view panels in hollow metal doors.
6. Division 08 Section "Door Hardware".
7. Division 08 Section "Access Control Hardware".
8. Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames.
9. Division 28 Section "Access Control Hardware".

C. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI/SDI A250.8 - Recommended Specifications for Standard Steel Doors and Frames.
2. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing.
3. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames.
4. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
5. ANSI/SDI A250.11 - Recommended Erection Instructions for Steel Frames.
6. ANSI/SDI A250.13 - Testing and Rating of Severe Windstorm Resistant Components for Swing Door Assemblies.

7. ASTM A1008 - Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
8. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
9. ASTM A924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
10. 10. SDI-113 Standard Practice for Determining the Steady-State Thermal Transmittance of Steel Door & Frame Assemblies.
11. ASTM C 1363 - Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.
12. ASTM C1199 - Standard Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods
13. ASTM E1423 - Practice for Determining Steady State Thermal Transmittance of Fenestration Systems.
14. ANSI/BHMA A156.115 - Hardware Preparation in Steel Doors and Frames.
15. ANSI/SDI 122 - Installation and Troubleshooting Guide for Standard Steel Doors and Frames.
16. ANSI/NFPA 80 - Standard for Fire Doors and Fire Windows; National Fire Protection Association.
17. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies.
18. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association.
19. UL 10C - Positive Pressure Fire Tests of Door Assemblies.
20. UL 1784 - Standard for Air Leakage Tests of Door Assemblies.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, and finishes.

B. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.

C. Shop Drawings: Include the following:

1. Elevations of each door design.
2. Details of doors, including vertical and horizontal edge details and metal thicknesses.
3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
4. Locations of reinforcement and preparations for hardware.
5. Details of anchorages, joints, field splices, and connections.
6. Details of accessories.
7. Details of moldings, removable stops, and glazing.
8. Details of conduit and preparations for power, signal, and control systems.

D. Samples for Verification:

1. Samples are only required by request of the architect and for manufacturers that are not current members of the Steel Door Institute.

E. Informational Submittals:

1. Hurricane Resistant Openings: Exterior hurricane opening assemblies to be tested according to ASTM E330, ASTM E1886, ASTM E1996, TAS 201, TAS 202, and TAS 203 standards, and certified by a qualified independent third party testing agency acceptable to authority having jurisdiction, with labeling indicating compliance with the design pressure level and debris impact resistance requirements specified for the Project.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain hollow metal doors and frames through one source from a single manufacturer wherever possible.

B. Quality Standard: In addition to requirements specified, furnish SDI-Certified manufacturer products that comply with ANSI/SDI A250.8, latest edition, "Recommended Specifications for Standard Steel Doors and Frames".

C. Fire-Rated Door Assemblies: Assemblies 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 UL10C (neutral pressure at 40” above sill) or UL 10C.

1. Oversize Fire-Rated Door Assemblies Construction: For units exceeding sizes of tested assemblies, attach construction label certifying doors are built to standard construction requirements for tested and labeled fire rated door assemblies except for size.
2. Temperature-Rise Limit: Where indicated and at vertical exit enclosures (stairwell openings) and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.
3. Smoke Control Door Assemblies: Comply with NFPA 105.

a. Smoke "S" Label: Doors to bear “S” label, and include smoke and draft control gasketing applied to frame and on meeting stiles of pair doors.

D. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257. Provide labeled glazing material.

E. Hurricane Resistant Exterior Openings (State of Florida including High Velocity Hurricane Zone (HVHZ): Provide exterior hollow metal doors and frames as complete and tested assemblies, or component assemblies, including approved hardware specified under Section 087100 "Door Hardware", to meet the design pressures, debris impact resistance, and glass and glazing requirements as detailed in the current State of Florida building code sections applicable to the Project.

1. Each unit to bear third party permanent label in accordance with Florida Building Code requirements.

F. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and

frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage. Do not use non-vented plastic.

B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.

C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch high wood blocking. Do not store in a manner that traps excess humidity.

1. Provide minimum 1/4-inch space between each stacked door to permit air circulation. Door and frames to be stacked in a vertical upright position.

1.6 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

1.7 COORDINATION

A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes. All technical disciplines are responsible for the product data integration and data reliability of their Work into the coordinated BIM applications.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

B. Warranty includes installation and finishing that may be required due to repair or replacement of defective doors.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:

1. CECO Door Products (C).
2. Curries Company (CU).

2.2 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.

B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

C. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

2.3 HOLLOW METAL DOORS

A. General: Provide 1-3/4 inch doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867.

B. Exterior Doors (Energy Efficient): Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A924 A60. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model, ANSI/SDI A250.4 for physical performance level, and HMMA 867 for door construction.

1. Design: Flush panel.
2. Core Construction: Foamed in place polyurethane and steel stiffened laminated core with no stiffener face welds or thermally enhanced stiffened laminated core with no stiffener face welds, in compliance with HMMA 867 “Laminated Core”.

    a. Provide 22-gauge steel stiffeners at 6 inches on-center internally welded at 5" on-center to integral core assembly, foamed in place polyurethane core chemically bonded to all interior surfaces. No stiffener face welding is permitted.
    b. Thermal properties to rate at a fully operable minimum U-Factor 0.34 and R-Value 2.92, including insulated door, thermal-break frame and threshold.
    c. Kerf Type Frames: Thermal properties to rate at a fully operable minimum U-Factor 0.38 and R-Value 2.6, including insulated door, kerf type frame, and threshold.

3. Level/Model: Level 3 and Physical Performance Level A (Extra Heavy Duty), Minimum 16 gauge (0.053 inch - 1.3-mm) thick steel, Model 2.
4. Vertical Edges: Vertical edges to be mechanically interlocked with hairline seam. Beveled Lock Edge, 1/8 inch in 2 inches (3 mm in 50 mm).
5. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet. Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door. Plastic or composite channel fillers are not acceptable.
6. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9".

7. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.

C. Interior Doors: Face sheets fabricated of commercial quality cold rolled steel that complies with ASTM A 1008/A 1008M. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:

1. Design: Flush panel.

a. Fire Door Core: As required to provide fire-protection and temperature-rise ratings indicated.

2. Level/Model: Level 3 and Physical Performance Level A (Extra Heavy Duty), Minimum 16 gauge (0.053-inch - 1.3-mm) thick steel, Model 2.
3. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet.
4. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped.
5. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.

D. Manufacturers Basis of Design:

1. Curries Company (CU) - Polystyrene Core - 707 Series.
2. Curries Company (CU) - Energy Efficient - 777 Trio-E Series.

2.4 HOLLOW METAL FRAMES

A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.

B. Exterior Frames: Fabricated of hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60.

1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
2. Frames: Minimum 14 gauge (0.067-inch -1.7-mm) thick steel sheet.
3. Manufacturers Basis of Design:

a. Curries Company (CU) - M Series.

C. Interior Frames: Fabricated from cold-rolled steel sheet that complies with ASTM A 1008/A 1008M.

1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
2. Frames: Minimum 16 gauge (0.053-inch -1.3-mm) thick steel sheet.
3. Manufacturers Basis of Design:

a. Curries Company (CU) - CM Series.
b. Curries Company (CU) - M Series.

D. Fire rated frames: Fabricate frames in accordance with NFPA 80, listed and labeled by a qualified testing agency, for fire-protection ratings indicated.

E. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

2.5 FRAME ANCHORS

A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, formed from A60 metallic coated material, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
2. Existing Masonry Type: Provide steel pipe spacers welded to plate reinforcing at jamb stops or hat shaped formed strap spacers welded to jamb near the stop. Drill jamb stop and strap spacers for flat head bolts to pass through frame and spacers.
3. Stud Wall Type: Designed to engage stud and not less than 0.042 inch thick.
4. Hurricane Opening Anchors: Types as tested and required for indicated wall types to meet specified design pressure and impact rating criteria.

B. Floor Anchors: Floor anchors to be provided at each jamb, formed from A60 metallic coated material, not less than 0.042 inches thick.

C. Mortar Guards: Formed from same material as frames, not less than 0.016 inches thick.

2.6 ACCESSORIES

A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.

B. Grout Guards: Formed from same material as frames, not less than 0.016 inches thick.

2.7 FABRICATION

A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. When shipping limitations so dictate, frames for large openings are to be fabricated in sections for splicing or splining in the field by others.

B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.

C. Hollow Metal Doors:

1. Exterior Doors: Provide optional weep-hole openings in bottom of exterior doors to permit moisture to escape where specified.
2. Glazed Lites: Factory cut openings in doors with applied trim or kits to fit. Factory install glazing where indicated.
3. Astragals: Provide overlapping astragals as noted in door hardware sets in Division 08 Section "Door Hardware" on one leaf of pairs of doors where required by NFPA 80 for fire-

performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted.

4. Electrical Raceways: Provide hollow metal doors to receive electrified hardware with concealed wiring harness and standardized Molex™ plug connectors on both ends to accommodate up to twelve wires. Coordinate connectors on end of the wiring harness to plug directly into the electrified hardware and the through-wire transfer hardware or wiring harness specified in hardware sets in Division 08 Sections "Door Hardware" and "Access Control Hardware". Wire nut connections are not acceptable.

D. Hollow Metal Frames:

1. Shipping Limitations: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
2. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.

    a. Welded frames are to be provided with two steel spreaders temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling. Spreader bars are for bracing only and are not to be used to size the frame opening.

3. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security screws at exterior locations.
4. Mortar Guards: Provide guard boxes at back of hardware mortises in frames at all hinges and strike preps regardless of grouting requirements.
5. Electrical Thru-Wiring: Provide hollow metal frames receiving electrified hardware with loose wiring harness (not attached to open throat components or installed in closed mullion tubes) and standardized Molex™ plug connectors on one end to accommodate up to twelve wires. Coordinate connectors on end of the wiring harness to plug directly into the electric through-wire transfer hardware or wiring harness specified in hardware sets in Division 08 Sections "Door Hardware" and "Access Control Hardware".
6. Electrical Knock Out Boxes: Factory weld 18 gauge electrical knock out boxes to frame for electrical hardware preps; including but not limited to, electric through wire transfer hardware, electrical raceways and wiring harnesses, door position switches, electric strikes, magnetic locks, and jamb mounted card readers as specified in hardware sets in Division 08 Sections "Door Hardware" and "Access Control Hardware".

    a. Provide electrical knock out boxes with a dual 1/2-inch and 3/4-inch knockouts.
    b. Conduit to be coordinated and installed in the field (Division 26) from middle hinge box and strike box to door position box.
    c. Electrical knock out boxes to comply with NFPA requirements and fit electrical door hardware as specified in hardware sets in Division 08 Section "Door Hardware".
    d. Electrical knock out boxes for continuous hinges should be located in the center of the vertical dimension on the hinge jamb.

7. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
8. Jamb Anchors: Provide number and spacing of anchors as follows:

a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches on-center and as follows:

1) Two anchors per jamb up to 60 inches high.
2) Three anchors per jamb from 60 to 90 inches high.
3) Four anchors per jamb from 90 to 120 inches high.
4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.

b. Stud Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:

1) Three anchors per jamb up to 60 inches high.
2) Four anchors per jamb from 60 to 90 inches high.
3) Five anchors per jamb from 90 to 96 inches high.
4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
5) Two anchors per head for frames above 42 inches wide and mounted in metal stud partitions.

c. Storm Shelter Openings: Provide jamb, head, and sill anchors in accordance with manufacturer’s certified assembly listings.

9. Door Silencers: Except on weatherstripped or gasketed doors, drill stops to receive door silencers. Silencers to be supplied by frame manufacturer regardless if specified in Division 08 Section "Door Hardware".
10. Bituminous Coating: Where frames are fully grouted with an approved Portland Cement based grout or mortar, coat inside of frame throat with a water based bituminous or asphaltic emulsion coating to a minimum thickness of 3 mils DFT, tested in accordance with UL 10C and applied to the frame under a 3rd party independent follow-up service procedure.

E. Hardware Preparation: Factory prepare hollow metal work to receive template mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."

1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
2. Reinforce doors and frames to receive non-template, mortised and surface mounted door hardware.
3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

2.8 STEEL FINISHES

A. Prime Finishes: Doors and frames to be cleaned, and chemically treated to insure maximum finish paint adhesion. Surfaces of the door and frame exposed to view to receive a factory applied coat of rust inhibiting shop primer.

1. Shop Primer: Manufacturer's standard, fast-curing, lead and chromate free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; and compatible with substrate and field-applied coatings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. General Contractor to verify the accuracy of dimensions given to the steel door and frame manufacturer for existing openings or existing frames (strike height, hinge spacing, hinge back set, etc.).

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove welded in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.

B. Prior to installation, adjust and securely brace welded hollow metal frames for square, level, twist, and plumb condition.

C. Tolerances shall comply with SDI-117 "Manufacturing Tolerances Standard Steel Doors and Frames."

D. Drill and tap doors and frames to receive non-template, mortised, and surface-mounted door hardware.

E. Verify tolerances against manufacturers installations instructions for tornado and hurricane storm shelter openings.

3.3 INSTALLATION

A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.

B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11 and NFPA 80 at fire rated openings.

1. Set frames accurately in position, plumbed, leveled, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames properly set and secured, remove temporary braces, leaving surfaces smooth and undamaged. Shim as necessary to comply with installation tolerances.
2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.

3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar.
4. Grout Requirements: Do not grout head of frames unless reinforcing has been installed in head of frame. Do not grout vertical or horizontal closed mullion members.

C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.

1. Non-Fire-Rated Standard Steel Doors:

a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.

2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.

D. Field Glazing: Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.

3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.

B. Remove grout and other bonding material from hollow metal work immediately after installation.

C. Prime-Coat and Painted Finish Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat, or painted finishes, and apply touchup of compatible air drying, rust-inhibitive primer, zinc rich primer (exterior and galvanized openings) or finish paint.

3.5 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
2. Submit documentation of incomplete items in the following formats:

a. PDF electronic file.

END OF SECTION 081113

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.01 QUALITY STANDARDS: Comply with NWWDA I.S.1 and AWI "Architectural Woodwork Quality Standards".

1.02 SUBMITTALS: In addition to product data, submit Samples 1'-0" square, of each type of core construction, face material and finish required.

1.03 WARRANTY: Provide manufacturer's life time of installation warranty for interior wood doors.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS: Subject to compliance with requirements, provide wood doors by one of the following:

Algoma Hardwoods, Inc.
Buell Door Company.
Eggers Industries, Architectural Door Division.
Marshfield Door Systems, Inc.
Oshkosh Architectural Door Company.
V. T. Industries.

2.02 GENERAL WOOD DOOR PRODUCT REQUIREMENTS: Provide doors with same exposed surface material on both faces of each door, unless otherwise indicated.

A. Louvers: Manufacturer's standard louvers of type, materials and size indicated:

1. Material: Color anodized aluminum. Color to be selected by Architect.

2.03 INTERIOR SOLID CORE DOORS FOR STAINED FINISH: As follows:

A. Faces: Natural birch, rotary sliced.

B. AWI Grade: Premium.

C. Construction: PC-5 (Particleboard core, 5-ply).

D. Finish: To be selected by Architect.

E. Metal Frames for Light Openings: Manufacturer's standard 18-gage cold-rolled steel frame, factory-primed, to be painted in field. Color to be selected by Architect.

2.04 INTERIOR FIRE-RATED SOLID CORE DOORS: Labeled and listed for rating indicated, by testing and inspection agency acceptable to authorities having jurisdiction, complying with the following requirements:

A. Faces and AWI Grade: Match faces of non-rated doors in same area of building, unless otherwise indicated.

B. Edge Construction: Manufacturer's standard laminated edge construction for improved screw-holding capability and split resistance.

C. Pairs: Furnished formed steel edges and astragals for pairs of fire-rated doors, unless otherwise indicated.

D. Metal Frames for Light Openings in Fire Doors: Manufacturer's standard 18-gage cold-rolled steel frame, factory-primed, approved for use in door of fire-rating indicated.

E. All doors in stairwells shall be temperature rise doors.

F. Fire rated doors shall be labeled with a permanently affixed raised metal tag located on the hinge side of the door. Stenciled or paper labels shall not be used.

2.05 FABRICATION: Fabricate flush wood doors to produce doors complying with following requirements:

A. In sizes indicated for job-site fitting.

B. Metal Astragals: Pre-machine astragals and formed steel edges for hardware where required for pairs of fire-rated doors.

C. Openings: Cut and trim openings through doors to comply with applicable requirements of referenced standards for kind(s) of doors required.
1. Light Openings: Trim openings with moldings of material and profile indicated.

D. Louvers: Factory install louvers in prepared openings.

2.06 SHOP SEAL faces and edges of doors for field-applied transparent finish with stain (if required) and other required pre-treatments and first coat of finish as specified in Division-9 section "Painting".

PART 3 - EXECUTION

3.01 INSTALLATION:

G. Install wood doors to comply with manufacturer's instructions and of referenced AWI standard and as indicated.

B. Install fire-rated doors in corresponding fire-rated frames in accordance with requirements of NFPA No. 80.

3.02 ALIGN AND FIT doors in frames with uniform clearances and bevels. Machine doors for hardware. Seal cut surfaces after fitting and machining.

3.03 PRE-FIT DOORS: Fit to frames for uniform clearance at each edge.

END OF SECTION 081416

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.

C. Related Sections:

1. Division 08 Section “Operations and Maintenance”.
2. Division 08 Section “Door Schedule”.
3. Division 08 Section “Door Hardware Schedule”.
4. Division 08 Section “Hollow Metal Doors and Frames”.
5. Division 08 Section “Flush Wood Doors”.
6. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
7. Division 28 Section “Access Control Hardware Devices”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ANSI/SDI A250.13 - Testing and Rating of Severe Windstorm Resistant Components for Swing Door Assemblies.
3. ICC/IBC - International Building Code.
4. NFPA 70 - National Electrical Code.
5. NFPA 80 - Fire Doors and Windows.
6. NFPA 101 - Life Safety Code.
7. NFPA 105 - Installation of Smoke Door Assemblies.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
3. Content: Include the following information:

    a. Type, style, function, size, label, hand, and finish of each door hardware item.
    b. Manufacturer of each item.
    c. Fastenings and other pertinent information.
    d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    e. Explanation of abbreviations, symbols, and codes contained in schedule.
    f. Mounting locations for door hardware.
    g. Door and frame sizes and materials.
    h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

    a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    b. Complete (risers, point-to-point) access control system block wiring diagrams.
    c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Hurricane Resistant Openings (State of Florida): Within the State of Florida, provide copy of current State of Florida Product Approval as proof of compliance that doors, frames and hardware for exterior opening assemblies have been tested and approved for use at the wind load and design pressure and debris impact resistance level requirements specified for the Project.

    a. Hurricane Resistant Components (State of Florida): Within the State of Florida, provide copy of independent, third party certified listing to ANSI A250.13.

2. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

1.4 CLOSEOUT SUBMITTALS

A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

1.5 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Hurricane Resistant Exterior Openings (State of Florida including the High Velocity Hurricane Zone (HVHZ)): Provide exterior door hardware as complete and tested assemblies, or component assemblies, including approved doors and frames specified under Section 081113 "Hollow Metal Doors and Frames", to meet the design pressures, debris impact resistance, and glass and glazing requirements as detailed in the current State of Florida building code sections applicable to the Project.

1. Each unit to bear third party permanent label in accordance with the Florida Building Code requirements.

G. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.

2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

J. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

1.6 DELIVERY, STORAGE AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.7 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to

source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

1.9 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 BUTT HINGES

A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

    a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
    b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

    a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
    b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

    a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.

5. Manufacturers:

    a. McKinney (MK) - TA/T4A Series, 5-knuckle.

2.2 CONTINUOUS HINGES

A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Where specified, provide modular continuous geared hinges that ship in two or three pieces and form a single continuous hinge upon installation.
2. Manufacturers:.

    a. Pemko (PE).

2.3 POWER TRANSFER DEVICES

A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

    a. Securitron (SU) - EL-CEPT Series.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
6. Manufacturers:

a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:

a. Sargent Manufacturing (SA).

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Manufacturer’s Standard.

C. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

D. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Three (3).
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

E. Construction Keying: Provide construction master keyed cylinders.

F. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. MMF Industries (MM).
c. Telkee (TK).

2.7 MORTISE LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 8200 Series.

2.8 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.9 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.
2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.
4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
6. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

    a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.
10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
11. Rail Sizing: Provide exit device rails factory sized for proper door width application.
12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
13. Hurricane and Storm Shelter Compliance: Devices to be U.L. listed for windstorm assemblies where applicable. Provide the appropriate hurricane or storm shelter products that have been independently third party tested, certified, and labeled to meet state and local windstorm building codes applicable to project.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.

    1. Electromechanical exit devices shall have the following functions and features:

        a. Universal Molex plug-in connectors that have standardized color-coded wiring and are field configurable in fail safe or fail secure and operate from 12vdc to 24vdc regulated.
        b. EcoFlex or equivalent technology that reduces energy consumption up to 92% as certified by GreenCircle.
        c. Options to be available for request-to-exit or enter signaling, latchbolt and touchbar monitoring.
        d. Field configurable electrified trim to fail-safe or fail-secure that operates from 12-24VDC.
        e. Five-year limited warranty for electromechanical features.

    2. Manufacturers:

        a. Sargent Manufacturing (SA) - 80 Series.

2.10 SURFACE DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - DC6000 Series.
b. Norton Rixson (NO) - 7500 Series.
c. Sargent Manufacturing (SA) - 1431 Series
d. Sargent Manufacturing (SA) - 351 Series.

2.11 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

    a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:

    a. Rockwood (RO).

2.12 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

    a. Norton Rixson (RF).

2.13 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).

2.14 ELECTRONIC ACCESSORIES

A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

1. Manufacturers:

a. Securitron (SU) - DPS Series.

B. Intelligent Switching Power Supplies: Provide the least number of power supplies at the appropriate amperage level sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.

1. Power supplies shall meet all functions and features as specified herein.

a. UL listed dual voltage 12 or 24 VDC field selectable continuous output.
b. Dedicated fast charger to prolong battery life with low battery cutoff to protect batteries from deep discharge.
c. Enhanced surge immunity for input/output protection
d. Separate, dedicated battery charging circuit to keep locks cooler.

e. Dual-color LED visual notification to prevent applying incorrect voltages to the power supply.
f. Instant auto-switch to battery on AC loss.
g. Expandable up to 16 outputs in the standard enclosure
h. Integrated fire alarm interface to allow main output shutdown or disconnect on a per output basis when using an R8 output module.
i. Network ready and remotely manage locks and connected devices when using an M8 managed output module on network models.
j. Lifetime replacement, no-fault, no questions asked warranty.

2. Manufacturers:

a. Securitron (SU) - AQL Series.

2.15 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.16 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and 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 specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with

approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

A. Initial Adjustment: 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.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.
2. The supplier is responsible for handing and sizing all products.
3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SU - Securitron
4. SA - SARGENT
5. RO - Rockwood
6. RF - Rixson
7. OT - Other

Hardware Sets

Set: 1.0
Doors: 100
Description: EXT ALUM PAIR w/ ACCESS CONTROL

2	Continuous Hinge	CFM__SLF-HD1-M PT		PE
2	Electric Power Transfer	EL-CEPT	630	SU
1	CVR Exit Dev, ELR	43 55 56 AD8410 106 x Less Pull	US32D	SA
1	CVR Exit Dev, ELR	43 55 56 AD8410 Less Pull	US32D	SA
1	Mortise Cylinder	21 41	US32D	SA
2	Offset Pull	RM2540-36	US32D	RO
2	Surface Closer w/Stop	351 CPS	EN	SA
1	Gasketing	by Alum door / frame mfg		OT
1	Threshold	2005AV MSES25		PE
2	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-CxxxP		MK
2	Position Switch	DPS		SU
1	Power Supply	AQL Series As Required		SU
1	Card Reader	Provided By Security Contractor		OT

Notes: Should this opening have an auto operator?
Exterior doors shall meet FBC standards for hurricane code compliance Level E impact.
The hardware specified is listed as a basis of design. Enviralum FL#20701.
If alternate hardware is proposed, please provide third-party test results and compliance information to architect.
Operational Narrative:
1. Doors normally closed and secure.
2. Authorized access by card reader retracting exit device latch.
3. Exit device latch can be electrically held retracted for open access.
4. Egress free for immediate exit.
5. REX switch in push rail allows authorized exit without alarm condition.
6. Door position switches monitor open/closed status.
7. Exit device latch release (fail secure) in event of power loss.
8. Keyed cylinder override for emergency access.

Set: 2.0
Doors: 104B, 105A, 106A, 107A, 119, C100A, C102, C103
Description: EXT SINGLE w/ ACCESS CONTROL

3	Hinge (heavy weight)	T4A3386 x NRP 4-1/2" x 4-1/2"	US32D	MK
1	Electric Power Transfer	EL-CEPT	630	SU
1	SVR Exit Dev, ELR	21 43 55 56 HC4 8706 ETL	US32D	SA
1	Surface Closer w/Stop	351 CPS	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Gasketing	S88BL		PE
1	Rain Guard	346C		PE
1	Sweep	315CN		PE
1	Threshold	2005AV MSES25		PE
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-CxxxP		MK
1	Position Switch	DPS		SU
1	Power Supply	AQL Series As Required		SU
1	Card Reader	Provided By Security Contractor		OT

Notes: Exterior doors shall meet FBC standards for hurricane code compliance Level E impact. The hardware specified is listed as a basis of design. Curries FL#32087.

Operational Narrative:
1. Doors normally closed and secure.
2. Authorized access by card reader retracting exit device latch.
3. Exit device latch can be electrically held retracted for open access.
4. Egress free for immediate exit.
5. REX switch in push rail allows authorized exit without alarm condition.
6. Door position switches monitor open/closed status.
7. Exit device latch release (fail secure) in event of power loss.
8. Keyed cylinder override for emergency access.

Set: 3.0
Doors: 132
Description: EXT MECHANICAL ROOM

3	Hinge (heavy weight)	T4A3386 x NRP 4-1/2" x 4-1/2"	US32D	MK
1	Surface Vert Rod Exit	21 43 HC4 8706 ETL	US32D	SA
1	Surface Closer w/Stop	351 CPS	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Gasketing	S88BL		PE
1	Rain Guard	346C		PE
1	Sweep	315CN		PE
1	Threshold	2005AV MSES25		PE
1	Position Switch	DPS		SU

Notes: Exterior doors shall meet FBC standards for hurricane code compliance Level E impact. The hardware specified is listed as a basis of design. Curries FL#32087.

Set: 4.0
Doors: 100A
Description: LOBBY

3	Hinge (heavy weight)	T4A3786 x NRP 4-1/2" x 4-1/2"	US26D	MK
1	Rim Exit Device, Classroom	21 43 8813 ETL	US32D	SA
1	Surface Closer w/Stop	351 CPS	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Gasketing	S88BL		PE

Set: 5.0
Doors: 102B
Description: NARC STORAGE

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Storeroom Lock	21 8204 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
3	Silencer	608		RO

Set: 6.0
Doors: 112, 113
Description: ELEC / COMM

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Storeroom Lock	21 8204 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 7.0
Doors: 101, 103, 104, 105, 106, 107, 108, 109, 110
Description: OFFICE w/ CLOSER

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Office Lock	21 8205 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 8.0
Doors: 102
Description: MED SUPPLY

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 9.0
Doors: 102A, 104A
Description: MED SUPPLY / FITNESS (ohs)

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Conc Overhead Stop	5-x36	652	RF
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Gasketing	S88BL		PE

Set: 10.0
Doors: 118
Description: KITCHEN

3	Hinge, Full Mortise	TA2714xNRP 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 11.0
Doors: 120
Description: JANITOR CLOSET

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Kick Down Door Stop	461	US26D	RO
3	Silencer	608		RO

Notes: Template closer for 180 degree swing.

Set: 12.0
Doors: 122
Description: BUNK ROOM - CAPTAIN

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Dormitory Lock	21 V11 8225 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Acoustic Seal Set	PEMKOSTCSET-1A	BL	PE

Set: 13.0
Doors: 118B
Description: KITCHEN PANTRY

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 LNL	US26D	SA
1	Wall Stop	406	US26D	RO
3	Silencer	608		RO

Set: 14.0
Doors: 118A
Description: KITCHEN PANTRY (ohs)

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 LNL	US26D	SA
1	Conc Overhead Stop	5-x36	652	RF
3	Silencer	608		RO

Set: 15.0
Doors: 131, C100, C101
Description: CORRIDOR

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 16.0
Doors: 121
Description: WASHER /DRYER

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 17.0
Doors: 124, 125, 127, 128, 129, 130
Description: SHARED BUNK ROOM

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Privacy Lock w/ Indicator	V11 8266 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Acoustic Seal Set	PEMKOSTCSET-1A	BL	PE

Set: 18.0
Doors: 111
Description: CONFERENCE ROOM

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Passage Latch	8215 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 19.0
Doors: 116, 117, 123, 126
Description: TOILET

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Privacy Lock w/ Indicator	V11 8266 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Mop Plate	K1050 6" X 1" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE
1	Coat Hook	RM801	US26D	RO

Hardware Sets - Alternate

Set: 20.0
Doors: A100
Description: COMM./PARAMEDICINE

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Office Lock	21 8205 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 21.0
Doors: A101
Description: MED SUPPLY

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 22.0
Doors: A101A
Description: NARC STORAGE

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Storeroom Lock	21 8204 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
3	Silencer	608		RO

Set: 23.0
Doors: A103
Description: MECHANICAL

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Storeroom Lock	21 8204 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 24.0
Doors: A110
Description: BUNK GEAR STORAGE

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Classroom Lock	21 8237 LNL	US26D	SA
1	Surface Closer	1431 O	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE

Set: 25.0
Doors: A105
Description: TOILET @ FITNESS

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Privacy Lock w/ Indicator	V11 8266 LNL	US26D	SA
1	Surface Closer	1431 P9	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406	US26D	RO
1	Gasketing	S88BL		PE
1	Coat Hook	RM801	US26D	RO

Set: 26.0
Doors: A106, A107
Description: TOILET @ FITNESS

3	Hinge, Full Mortise	TA2714 4-1/2" x 4-1/2"	US26D	MK
1	Privacy Lock w/ Indicator	V11 8266 LNL	US26D	SA
1	Surface Closer w/ Stop	1431 CPS	EN	SA
1	Kick Plate	K1050 8" X 2" LDW CSK BEV	US32D	RO
1	Gasketing	S88BL		PE
1	Coat Hook	RM801	US26D	RO

END OF SECTION 087100

SECTION 088000 - GLASS AND GLAZING

PART 1 - GENERAL

1.01 RELATED SECTIONS

A. Section 084113 – Aluminum Entrances and Storefronts

1.02 GLAZING STANDARD: Comply with FGMA "Glazing Manual" and "Sealant Manual".

1.03 SAFETY GLAZING STANDARD: Comply with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials.

1.05 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
   1. Design Wind Pressures: Determine design wind pressures applicable to Project according to ASCE/SEI 7, based on heights above grade indicated on Drawings.
   2. Basic Wind Speed: 130 mph **(**3 second gust)
   3. Importance Factor: 1.00
   4. Exposure Category: C.

B. Comply with National Storm Shelter Association's Standard for the Design and Construction of Storm Shelters, ICC 500-2008

C. Comply with Chapter 16 of Florida Building Code Wind Borne Debris Region.

1.06 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated

PART 2 - PRODUCTS

2.01 GLASS MANUFACTURERS: Subject to compliance with requirements, provide products by one of the following:

Falconer Glass Industries.
Ford Glass Div.
Guardian Industries Corp.
Hordis Brothers, Inc.
LOF Glass, Inc.
Pilkington Sales
PPG Industries Inc.
Saint Gobain/Euroglass.
Spectrum Glass Prod.
Viracon, Inc.

2.03 SIZES: Fabricate glass of thicknesses indicated and to sizes required for glazing openings indicated, with edge clearances and tolerances complying with recommendations of glass manufacturer.

2.04 PRIMARY GLASS PRODUCTS: Comply with ASTM C 1036 for the following:

A. Clear Float Glass: Type I, Class 1, Quality q3.

B. Tinted Float Glass: Type I, Class 2, Quality q3.

2.05 FIRE-RATED GLAZING:

A. Provide fire rated glazing composed of multiple sheets of glass laminated with an intumescent interlayer. Provide Pyrobel as manufactured by AGC Flat Glass Europe and distributed by InterEdge Technologies LLC, Sausalito, CA (877) 376-3343 OR approved equal.

B. Properties:
1. Thickness: For Interior Use: 1", #60-25 V-60.
2. Weight: Interior glazing varies with thickness (approximate range 12 lbs/sq.ft.).
3. Approximate Visible Transmission: 81%.
4. Fire-rating at opening locations on drawings, when tested in accordance with ASTM E 119 and UL 263.

C. Glazing Compound (for fire rated glazing material):
1. Glazing Tape: Closed cell foam, coiled on release paper over adhesive on one side, maximum water absorption by bolume of 1 percent, designed for compression of 30 percent to effect an air and vapor seal. At header apply additional layer of Pemko 3000S45 intumescent glazing tape.
2. Silicone Sealant at Butt Joints: Neutral Cure Silicone as specified by manufacturer:.
3. Perimeter Silicone Sealant: One-part neutral curing silicone, medium modulus sealant, Type S; Grade NS; Class 25 with additional movement capability of 50 percent in both extension and compression (total 100 percent); Use (Exposure) NT; uses (Substrates) G, A, and O as applicable. Available products:
   a. Dow Corning 795 – Dow Corning Corp.
   b. Silglaze-II 2800 – general Electric Co.
   c. Spectrem 2 – Tremco, Inc.
4. Setting Blocks: Calcium silicate; glass width by 3" x ¼" thick.
5. Cleaners, Primers, and Sealers: Type recommended by manufacturer of glass and gaskets.

2.05 UNCOATED HEAT-TREATED GLASS PRODUCTS: Comply with ASTM C 1048 and with manufacturing process indicated for the following:

A. Clear Tempered Float Glass: Kind FT, Condition A, Type I, Class 1, Quality q3.

B. Tinted Tempered Float Glass: Kind FT, Condition A, type I, Class 1, Quality q3.

2.06 LAMINATED GLASS, GENERAL:

A. Description: Two plies of float glass laminated with polyvinyl butyral (PVB) plastic interlayer, clear.

B. Compliance:
1. ASTM C 1172
2. Testing requirements in CPSC 16 CFR 1201 for Category II materials.
3. Windborne-Debris-Impact Resistance: ASTM E 1886 and ASTM E 1996.
a. Test specimens shall be no smaller in width and length than glazing indicated for use on the project and shall be installed in same manner as glazing indicated for use on the project.
b. Testing Level: Basic
c. Wind Zone: As scheduled and indicated on drawings.
d. Missile Testing: Large-Missile Test; for glazing located within 30 feet of grade.

2.07 SEALED INSULATING GLASS UNITS:

A. Comply with requirements of ASTM E 774 for Class A units and the following:

B. Performance characteristics indicated are those of units and are based on manufacturer's published test data for units with 1/4" thick panes and 1/2" thick air space. U-values are indicated in Btu per hr. per sq. ft. per deg. F difference.

C. For properties of individual glass panes making up units refer to product requirements specified elsewhere in this section applicable to types, classes, kinds and conditions of glass products indicated.

D. Provide heat-treated panes of kind indicated and as recommended by the manufacturer for application indicated.
1. Thickness of Each Pane: ¼".
2. Air Space Thickness: ½".
3. Sealing System: Manufacturer's standard.
4. Spacer Material: Manufacturer's standard metal.

E. Low-E Coating: (Interior Lite) 19/32" Laminate – ¼" PPG Solarban 60, with "OPTIGRAY 23" with the following performances characteristics OR approved equal:
1. Shading Coefficient: 0.21
2. Solar Heat Gain Coefficient: 0.18
3. Light to Solar Gain (LSG): 1.02

2.07 GLAZING SEALANT: Comply with sealant and glass manufacturers for selection of glass sealants which suit project application and installation conditions and which are compatible with surfaces contacted. Provide color of exposed sealants indicated or as selected by Architect.

2.08 DENSE ELASTOMERIC COMPRESSION SEAL GASKETS: ASTM C 864, extruded or molded neoprene, EPDM, or thermoplastic polyolefin rubber.

2.09 CELLULAR ELASTOMERIC PREFORMED GASKETS: ASTM C 509, Type II, black; extruded or molded neoprene.

2.10 CLEANERS, PRIMERS AND SEALERS: Type recommended by manufacturer of sealants/gaskets.

2.11 BLOCKS AND SPACERS: Neoprene, EPDM or silicone as required for compatibility with glazing sealants; of 80 to 90 Shore A hardness for setting blocks and, for spacers and edge blocks, of hardness

recommended by glass and sealant manufacturer for application indicated.

2.12 COMPRESSIBLE FILLER RODS: Closed-cell or waterproof-jacketed rod stock of synthetic rubber or plastic foam, 5-10 psi compression strength for 25 percent compression.

PART 3 - EXECUTION

3.01 GLASS INSTALLATION (GLAZING): Comply with referenced FGMA standards and instructions of manufacturers of glass, glazing sealants, and gaskets, to achieve airtight and watertight performance, and to minimize breakage.

3.02 PROTECT GLASS FROM EDGE DAMAGE during handling and installation. Inspect glass during installation and discard pieces with edge damage that could affect glass performance.

3.03 SET UNITS OF GLASS IN EACH SERIES with uniformity of pattern, draw, bow and similar characteristics.

3.04 PROTECT GLASS from contact with contaminating substances resulting from construction operations; remove any such substances by method approved by glass manufacturer.

3.05 WASH GLASS ON BOTH FACES not more than 4 days prior to date scheduled for inspections intended to establish date of substantial completion. Wash glass by method recommended by glass manufacturer.

END OF SECTION 088000

SECTION 092900 - GYPSUM DRYWALL

PART 1 - GENERAL

1.01 Fire-Resistance Ratings: Provide gypsum drywall construction fire-resistance ratings indicated, conforming to assemblies tested per ASTM E 119 by inspecting and testing organization acceptable to authorities having jurisdiction.

A. **All fire and/or smoke barriers or walls shall be effectively and permanently identified with stenciling above any decorative ceiling and/or in concealed space with letters a minimum of two (2) inches high on a contrasting background spaced a maximum of twelve (12) feet on center with a minimum of one per wall or barrier. The hourly fire rating shall be included on all rated barriers or walls. Wording shall be as follows: "(__) Hour Fire and Smoke Barrier-Protect All Openings."**

B. **Storage rooms which are sprinklered shall have permanently stenciled, eighteen (18) inches below sprinkler heads, a designation line (red) with the following wording: "NO STORAGE ABOVE LINE." Requirements for stenciling shall be as noted above.**

1.02 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Provide light gauge framing shop drawings stamped by a Florida registered engineer.

PART 2 – PRODUCTS

2.01 Manufacturers: Subject to compliance with requirements, provide gypsum board and related products by one of the following:

Georgia-Pacific Corp.
Gold Bond Building Products Div.
National Gypsum Co.
United States Gypsum Co.

2.02 Steel Framing Components for Suspended Ceilings: As follows, sized per ASTM C 754, unless otherwise indicated:

A. Wire for Hangers and Ties: ASTM A 641, soft, Class 1 zinc coating.

B. Grid Suspension System: ASTM C 645, manufacturer's standard grid suspension system composed of main beams and cross furring members which interlock to form a modular supporting network.

2.03 Steel Framing for Walls and Partitions: Comply with ASTM C 754 and the following:

A. Steel Studs and Runners: ASTM C 645, 0.0179 inch (25 gauge) base metal thickness unless otherwise indicated.

1. Height for which 0.0179 inch (25 gauge) is insufficient per manufacturer's "Limiting Height Tables", shall be accomplished in the gauge of material required by these tables. **If 3-5/8" metal studs shown on the floor plans will not meet the "Length Heights Table", brace each metal stud or use 6" metal stud instead.** Such materials to be provided at no additional cost to the Owner.
2. All door frame openings shall be reinforced with two (2) 0.0312 inch (20 gauge) studs on each side for a total of four (4) studs.

B. Base Track: ASTM C 645, 0.0312 inch (20 gauge) for interior; 0.0538 inch (16 gauge) for exterior.

C. Top Track: Slip Track, 0.0312 inch (20 gauge) for interior; 0.0538 inch (16 gauge) for exterior.

D. Steel Rigid Furring Channels: ASTM C 645, 0.0179 inch (25 gauge) base metal thickness, hat-shaped.

2.04 Gypsum Board: Provide gypsum board of types indicated in maximum lengths available to minimize end joints:

A. Exposed Gypsum Board: ASTM C 36, 5/8" thickness, Type 'X'. For fire-rated-assemblies refer to Drawings for UL Design Numbers.

B. Moisture & Mold Resistant Gypsum Board: ASTM C 1396, 5/8" thickness, regular type except where Type X Fire-resistant type is indicated or required to meet UL assembly types. Edges shall be tapered. Provide Sheetrock brand Mold Tough Firecode Gypsum Panels by USG OR approved equal. **Note: All wet areas to receive Moisture & Mold Resistant Gypsum Board. Wet areas include walls and ceilings where gypsum board is specified. Areas include, but are not necessarily limited to, bathrooms, gang toilets, showers, janitor closets, kitchens and laundry areas.**

C. Mineral Board: Provide 1/2" gypsum sheathing board core in accordance with ASTM C 1177 with glass mats both sides and long edges. Provide Dens-Glass Gold by Georgia-Pacific Corp. OR approved equal.

2.05 Trim Accessories: ASTM C 840; manufacturer's standard trim accessories, including cornerbead and edge trim of beaded type with face flanges for concealment in joint compound.

2.06 Gypsum Board Joint Treatment Materials: ASTM C 475 and ASTM C 840, and as follows:

A. Joint Tape: Paper reinforcing tape, unless open-weave glass fiber tape is recommended by gypsum board manufacturer.

B. Setting-Type Joint Compound: Factory-prepackaged, job-mixed chemical-hardening powder products formulated for uses indicated.

C. Drying-Type Joint Compounds: Factory-prepackaged -premixed vinyl-based products. Taping compound formulated for embedding tape and first coat over fasteners and flanges of corner beads and edge trim. Topping compound formulated for fill (2nd) and finish (3rd) coats.

2.07 Miscellaneous Materials: As recommended by gypsum board manufacturer:

A. Gypsum Board Screws: ASTM C 1002.

B. Concealed Acoustical Sealant: Comply with requirements specified in Division-7 Section "Joint Sealers."

PART 3 - EXECUTION:

3.01 Install steel framing to comply with ASTM C 754 and ASTM C 840.

A. Do not bridge building expansion joints with support systems, frame both sides of joints with furring and other supports as indicated.

B. Secure hangers to structural support by connecting directly to structure where possible, otherwise connect to inserts, clips other anchorage devices or fasteners as indicated.

C. Install direct-hung grid suspension system, including perimeter wall track or angle, with members spaced and installed to comply with mfr's instructions.

D. Install steel studs with bottom and top runner tracks anchored to substrates. Isolate system from building structure to prevent transfer of loading and deflections into metal support system, both vertically and horizontally.

E. Install supplementary framing, runners, furring, blocking and bracing at openings and terminations in gypsum drywall and where required for support of other work which cannot be adequately supported on gypsum board alone.

3.02 Install and finish gypsum board to comply with ASTM C 840 and as follows:

A. Isolate drywall construction from abutting structural and masonry work; provide edge trim and acoustical sealant as recommended by manufacturer.

B. Screw gypsum board to metal supports.

C. Do not bridge building expansion joints. Leave space of the width indicated between boards, and trim both edges for installation of sealant or gasket.

3.03 Install water-resistant backing board where indicated to receive thin-set tile.

3.04 Drywall Finishing:

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

A. Prefill open joints and damaged surface areas.

B. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:

1. Level 4: (For all surfaces unless otherwise noted)

a. All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes. (See Section 099000 – Painting.)

3.05 Install compound in 3 coats (plus prefill of cracks where recommended by manufacturer); sand between coats and after last coat.

A. Embedding and First Coat: Ready-mix drying type all-purpose of taping compound.

B. Fill (Second) Coat: Ready-mix drying type all-purpose or topping compound.

C. Finish (Third) Coat: Ready-mix drying-type all-purpose or topping compound.

END OF SECTION 092900

PAGE LEFT BLANK INTENTIONALLY

SECTION 093000 – TILE

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Tile setting mortars and adhesives.

B. Grout for tile installation.

C. Waterproofing membrane for tile.

1.02 REFERENCES

A. ANSI A108 Series/A118 Series – American National Standards for Installation of Ceramic Tile.

B. ANSI A136.1 – American National Standards for Organic Adhesives for Installation of Ceramic Tile.

C. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar.

D. ASTM C 150 – Standard Specification for Portland Cement.

E. TCNA (HB) – Handbook for Ceramic Tile Installation; Tile Council of North America, Inc.

F. ISO 13007 – International Standards Organization; classification for Grout and Adhesives.

1.03 SUBMITTALS

A. Submit under provisions of Section 013300.

B. Manufacturer's technical information for each product specified.

C. Samples:
   1. Color charts for selection of grout.
   2. Three 6" x 6" samples of each porcelain tile specified.

D. Installation Instructions: Manufacturer's printed instructions for each product.

1.04 DELIVERY, STORAGE AND HANDLING

A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Prevent damage or contamination to materials by water, freezing, foreign matter or other causes.

B. Do not use frozen materials unless specifically allowed by manufacturer.

C. Deliver and store materials on site at least 24 hours before work begins.

D. Provide heated and dry storage facilities on site.

1.05 EXTRA MATERIALS

A. Provide additional stock to Owner equaling 2% of each type and color installed.

1.06 PROJECT CONDITIONS

A. Maintain environmental conditions and protect work during and after installation to comply with referenced standards and manufacturer's printed recommendations.

B. Vent temporary heaters to exterior to prevent damage to tilework from carbon dioxide build-up.

C. Maintain temperatures at no less then 50 deg F (10 deg C) in tiled areas during installation and for 7 days after completion, unless higher temperatures are required by referenced installation standards or manufacturer's written instructions.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers for grout, mortar and setting materials:
MAPEI Corp. U. S. A.,
1144 E. Newport Center Rd
Deerfield Beach, FL 33442; Toll Free Tel: 800-42-MAPEI; Tel: (954) 246 – 8888;
Fax: (954) 246 – 8801; Web: www.mapei.com
OR approved equal.

B. Provide tile grout, setting materials, additives, waterproofing, shower-pan mortar, and factory-prepared mortars from the same manufacturer.

C. Request for substitutions will be considered in accordance with provisions of Section 012500.

2.02 MORTAR /MATERIALS

A. Floor Tile:
1. Thinset Bed Mortar: Premium Grade, Single-component, Ultra high performance, polymer-modified thin set mortar complying with ANSI A118.4 and ANSI A118.11; MAPEI Ultraflex 3.
2. Grout: Solvent-free, 100%-solids epoxy grout. Non-sagging, chemical resistant grout, with high-compressive strength; MAPEI Kerapoxy CG (not 410) meeting or exceeding ANSI A118.3.
3. Sealant: Silicone Joint for heavy traffic and movement joints. MAPEI Mapesil T (Res / Comm 1-6)

2.03 MIXES

A. Proportion and mix materials in accordance with manufacturer's most current written instructions and applicable ANSI standards.

2.04 Porcelain Tile (PT):
Manufacturer: Trinity Tile OR approved equal.
Style: Argonite
Color: Owner to select from Manufactures Color Legend.
Sizes: (PT-1 & PT-3) 12" x 12" & (PT-2) 12" x 24"
Type: Porcelain, unpolished, color body
Face: Plain with coefficient of friction to equal 0.60 wet or higher as per ASTM C 1028.
Base: 6"h x 12"w coved base - use where PT is scheduled as a base, but there is no wainscot.
Metal trim: Schluter -QUADEC at top of wainscot; Schluter DILEX-AHK between floor tile and tile at base of wainscot - both in anodized aluminum finish.
Contact: Robin Ritchey - 850-210-2643

2.05 Metal Transition Strip: Provide a metal transition strip between porcelain tile and carpet equal to Schluter RENO-TK and between porcelain tile and resilient tile equal to Schluter RENO-U, both in a satin anodized

aluminum finish. Trim RENO-U shall be installed with resilient tile abutting the 4 mm (5/32") front edge. Do not run resilient tile under this trim

2.06 Setting Materials: Provide setting materials as follows:

A. Sealer: ASTM E 96 Tile/grout sealer shall be water based, sub-surface, water repellant equal to Silox 110 by Cerama Seal, where applicable.

B. Waterproofing and crack-isolation membrane (floors): Trowel applied, flexible, fiber-mesh-reinforced waterproofing and crack-isolation membrane applied as per ANSI A118.10; Mapei, Mapelastic 315. Install membrane to comply with pertinent codes and manufacturer's directions.
1. Fiberglass Mesh: Use Mapei Fiberglass mesh with Mapelastic 315.

PART 3 - EXECUTION

3.01 EXAMINATION AND SURFACE PREPARATION

A. Before work commences, the flooring contractor must examine areas to be covered and report any deficiency or adverse condition in writing to the general contractor and architect.

B. Do not proceed with the work until surfaces and conditions comply with the requirements indicated in the manufacturer's instructions, applicable industry standard, federal, state, provincial, local regulations and good work practices. By beginning work, the applicator/user acknowledges that the conditions are acceptable for installation.

C. All concrete substrates must be fully cured and free of any hydrostatic and/or moisture problems. The moisture-vapor emission from a concrete slab must not exceed the industry accepted level per 1,000 sq. ft. (1,36 kg per 92,9m2) per 24 hours as measured by the anhydrous calcium chloride test kit, based upon test method ASTM F1869. It also must not exceed the flooring or adhesive manufacturer's written limitations for suitable emission rates.

D. Substrates should be sound, stable and free of all oils, grease, loose debris, paint, drywall debris, curing agents, sealers or any potential bond breaking contaminants must be removed mechanically. Do not use chemicals for surface prep. Consult the manufacture for their specific recommendations.

E. Do not install over vinyl asbestos tile (VAT) or any flooring, substrate or substance that may contain asbestos. Do not install over any adhesives, including asphalt cutback residue, that may have been used to install flooring containing asbestos. Do not sand or remove any existing resilient floors or cutback adhesive that contains asbestos fibers or crystalline silica. For removal instructions, refer to the Resilient Floor Covering Institute's Recommended Work Practices. Follow all local, state and federal regulations and industry standards when mechanical removal is required.

F. All substrates must be plumb and flat to a tolerance in plane of 1/4" in 10' for floors and 1/4" in 8' for walls. Refer to manufactures specifications for their specific product.

3.02 INSTALLATION

A. Comply with ANSI A108.1 and 108.4 through A108.10, as applicable for type of tile; setting materials, and grout. Comply with manufacturer's instructions for application of proprietary materials.

B. Comply with standards by the TCNA, Tile Council of North America.

C. Install expansion and control joints in accordance with TCNA EJ-171 – 17.

D. Joint Pattern: As required by manufacturer

E. Slab on grade floor tile installed according to TCNA F115-17.

F. Above-ground concrete floor tile installed according to TCNA F115A-17.

G. Wall tile installed according to TCNA W244C-17.

H. Wall and floor tile for showers installed according to TCNA B415-17, waterproof membrane option and cement backer board.

3.03 PROTECTION

A. Floors: Protect from all traffic for at least 72 hours after installation.
   1. Do not step on floor for at least 24 hours; if traffic is unavoidable after that, use plywood stepping boards.
   2. Protect from heavy traffic for at least 7 days after installation.
   3. Protect from food products and chemicals which can cause staining for at least 14 days.
   4. Protect from freezing and total water immersion for at least 21 days after installation.

B. Walls: Protect from impact, vibration and heavy hammering on adjacent and opposite walls for at least 14 days after installation, unless manufacturer’s instructions allow a shorter period.

3.04 Cleaning and Protection: Clean tile in accordance with applicable ANSI standard for type of tile and method of installation used and manufacturer's instructions. Apply heavy craft paper or other heavy protective covering to prevent surface damage.

END OF SECTION 093000

SECTION 095100 - ACOUSTICAL CEILINGS

PART 1 - GENERAL

1.01 Acoustical Panel and Tile Standard: FS SS-S-118.

1.02 Acoustical Suspension System Standards: ASTM C 635 for materials, ASTM C 636 for installation.

1.03 Surface Burning Characteristics: 25 or less for flame spread, 50 or less for smoke developed, per ASTM E 84.

1.04 Submittals: Submit product data for each type of acoustical ceiling tile along with 6" square samples of each type of acoustical tile.

1.05 Coordination: Review Finish Plan on drawings and Mechanical and Electrical Drawings for layout and pattern of acoustical units, location of recessed light fixtures, ceiling diffusers and grilles, details of ceiling penetrations, details of fire rated acoustical treatment, access doors and necessary connections to work of other trades.

Provide coordination drawings for reflected ceiling plans drawn accurately to scale and coordinating penetrations and ceiling-mounted items. Show the following:

1. Ceiling suspension members.
2. Methods of attaching hangers to building structure.
3. Size and location of initial access modules.
4. Ceiling-mounted items including light fixtures; air outlets and inlets; speakers; sprinkler heads; and column penetrations and other junctures with adjoining construction.

1.06 Installer Qualifications: Engage an experienced Installer who has successfully completed acoustical ceilings similar in material, design and extent to that indicated for Project.

1.07 Preinstallation Conference: Conduct a preinstallation conference at the Project site to coordinate work from all trades.

1.08 Delivery, Storage and Handling: Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination and other causes. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.

1.09 Deliver extra materials to Owner. Furnish extra materials of each size and type matching products installed and equaling 2.0% of acoustical units and exposed suspension members installed. Package materials in protective covering and identify with appropriate labels.

1.10 Warranty: Provide acoustical panels and grid from the same manufacturer with a thirty year warranty from the date of substantial completion.

PART 2 - PRODUCTS:

2.01 **Approved Manufacturers**:
Armstrong Commercial Ceilings
USG Commercial Ceilings

A. **ACT-1**–Wet formed mineral fiber with factory applied latex paint;
Type III; Form 2; Pattern C E; Class A and as follows:
Color: White.
Light Reflectance: 86%
NRC: 0.75
CAC: 35.

Edge Detail: Square
Size: 24" x 24" x 7/8".
Products: Subject to compliance with requirements, provide "Fine Fissured High NRC" #1754, by Armstrong OR approved equal.
Sag Resistance: HumiGuard+
Antimicrobial: BioBlock+
Recycled Content: Up to 73%
VOC Emissions: Low emitting

2.02 Dimensional Stability: Suspension systems shall meet or exceed the requirements of ASTM C635 for dimensional tolerances, coatings and finishes, and load carrying capabilities.

2.02 Humidity control: Ceilings shall have a 30-year system warranty against system sagging and warping when installed according to manufacturer's recommendations. Ceilings shall have and anti-microbial warranty against fungi, mold, mildew, bacteria, yeast or algae.

2.04 Suspension Systems:

A. Non-Fire-Resistance-Rated Exposed Double Web Steel Direct-Hung Suspension System with 15/16" Wide Exposed Faces: Roll-formed from prefinished cold-rolled steel sheet, with hanger wire, attachment devices and edge moldings and trim; intermediate-duty system structural classification; white painted finish. Note: All cold-rolled steel sheets shall be hot dipped galvanized (G-30).
Armstrong – 15/16" Prelude XL.
(Manufacturer's Ceiling Tile shall be installed with Manufacturer's Suspension System in order to keep the 30 year system warranty. No alternate manufacturers warranties will be accepted).

PART 3 - EXECUTION

3.01 Project Conditions: Do not install interior acoustical ceilings until space is enclosed and weatherproof, wet work in space is completed and nominally dry, work above ceilings is complete, and ambient conditions of temperature and humidity will be continuously maintained at values near those indicated for final occupancy.

3.02 Layout: Balance ceiling borders on opposite sides, using more-than-half-width acoustical units.

3.03 Tolerance: 1/8" in 12'-0" level tolerance.

3.04 Suspension System: Secure to building structure, with hangers spaced 4'-0" along supported members.

3.05 Edge Moldings: Secure to substrate with screw anchors spaced 16" o.c. Miter corner joints. Cope exposed edges of intersecting exposed suspension members to produce flush intersections.

3.06 Damaged ceiling panels: Prior to Substantial Completion, remove and replace skinned, damaged or dirty ceiling panels with new material.

3.07 Cleaning: Clean exposed surfaces of acoustical ceilings, including trim, edge moldings and suspension members. Comply with manufacturer's instructions for cleaning and touch-up of minor finish damage. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095100

SECTION 096500 - RESILIENT TILE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY:

A. Section Includes:
1. Resilient floor tile.
2. Vinyl Wood floor planks

1.03 SUBMITTALS:

A. Product Data: For each type of product indicated.

B. Samples for Verification: Full-size units of each color and pattern of floor tile required.

C. Qualification Data: For qualified Installer.

D. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.04 QUALITY ASSURANCE

A. Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation indicated.
1. Engage an installer who employs workers for this Project who are trained for installation techniques required.

B. 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.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C). Store floor tiles on flat surfaces.

1.06 PROJECT CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 68 deg F (20 deg C) or more than 72 deg F (22.2 deg C), in spaces to receive floor tile during the following time periods:
1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 60 deg F (15.6 deg C or more than 80 deg F (26.7 deg C).

C. Close spaces to traffic during floor tile installation.

D. Close spaces to traffic for 48 hours after floor tile installation.

E. Install floor tile after other finishing operations, including painting, have been completed.

1.08 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Floor Tile: Furnish 1 box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

PART 2 - PRODUCTS

2.01 RESILIENT TILE - RT

A. Mfr: Centiva OR approved equal
   Series: Contour
   Contact: Ed Zanders with Tandus flooring (904) 535-6791.
B. Tile Standard: ASTM F 1700.
   1. Class: Class III, printed film vinyl tile.
   2. Type: Type B, embossed surface.
C. Nominal Thickness: overall - 0.120 inch (3.0 mm); wear layer - 32 mil
D. Test Performance:
   ASTM E648: Critical Radiant Flux - Class 1, CRF > 0.45
   ASTM E662: Smoke Density - > 450, Good
   ASTM F925: Chemical Resistance - Excellent
   ASTM C1028: Slip resistance - Very good
   ASTM D2047: Passes
   ADA Compliant: FTC slip resistant classified product
E. Size: 18" x 18"
F. Seaming Method: Standard
G. Edges: Square
H. Surface Texture: Quarry, QU
I. Color: See color legend in drawings.
J. Warranty: 20 year commercial

2.02 VINYL WOOD FLOORING - VWF

A. Mfr: Centiva OR approved equal
   Series: Event
   Contact: Ed Zanders with Tandus flooring (904) 535-6791.
B. Tile Standard: ASTM F 1700.
   1. Class: Class III, printed film vinyl tile.
   2. Type: Type B, embossed surface.
C. Nominal Thickness: overall - 0.120 inch (3.0 mm); wear layer - 30 mil
D. Test Performance:
   ASTM E648: Critical Radiant Flux - Class 1, CRF > 0.45
   ASTM E662: Smoke Density - > 450, Good
   ASTM F925: Chemical Resistance - Excellent
   ASTM C1028: Slip resistance - Very good
   ASTM D2047: Passes
   ADA Compliant: FTC slip resistant classified product
E. Size: 6" x 36"
F. Seaming Method: Standard

G. Edges: Square
H. Surface Texture: Rustic, RU
I. Color: See color legend in drawings.
J. Warranty: 20 year commercial

2.03 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based formulation provided or approved by manufacturer for applications indicated.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Centiva; 6000 for 6 lbs. of mver. Provide mr 12 adhesive if mver is between 6 lbs and 12 lbs.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

B. 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 manufacturer. Do not use solvents.

3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

4. Moisture Testing: Perform tests recommended by manufacturer **and as follows**. Proceed with installation only after substrates pass testing. Testing shall be done by an independent third party.
a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 5 lb of water/1000 sq. ft. (2.27 kg of water/92.9 sq. m) in 24 hours.

b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum **75%** relative humidity level measurement.

c. Both tests shall be done. Results shall be documented and retained. A copy shall be submitted to the Architect, Contractor and Flooring Subcontractor within 72 hours.

C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.

D. Do not install floor tiles until they are same temperature as space where they are to be installed.
   1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
   2.

E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.03 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.

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 carefully, noting directional arrows on the back of tiles when present.

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, nonstaining marking device.

G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor 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 flooring 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.

3.04 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.

B. Perform the following operations immediately after completing floor tile installation:
   1. Remove adhesive and other blemishes from exposed surfaces.
   2. Sweep and vacuum surfaces thoroughly.
   3. Damp-mop surfaces to remove marks and soil.

C. Protect floor tile products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

D. Remove soil, visible adhesive, and surface blemishes from floor tile surfaces .
   1. Not less than 48 hours after installation, clean floor with a neutral liquid cleaner, as recommended by the flooring and cleaner manufacturers.

END OF SECTION 096500

SECTION 096513 - RESILIENT WALL BASE & STAIR TREADS

PART 1 - GENERAL

1.01 SUMMARY:

A. Section Includes: RESILIENT WALL BASE

1.02 REFERENCED DOCUMENTS:

A. ASTM International
1. E84, Standard Test Method for Surface Burning Characteristics of Building Materials.
2. E648, Standard Test Method for Critical Radiant Flux of Flooring Systems Using a Radiant Energy Source.
3. E662, Test Method for Specific Density of Smoke Generated by Solid Materials.
4. F137, Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus.
5. F925, Standard Test Method for Resistance to Chemicals of Resilient Flooring.
6. F1861, Standard Specification for Resilient Wall Base.

B. Other Referenced Documents
1. National Fire Protection Association (NFPA), NFPA 255; Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source.
2. National Fire Protection Association (NFPA), NFPA 258; Test Method for Specific Density of Smoke Generated by Solid Materials.

1.03 SUBMITTALS:

A. Product Data: Submit product data, including manufacturer's specification summary sheet for specified products.

B.

C. Shop Drawings: Submit shop drawings showing layout, finish colors, patterns and textures.

D. Samples: Submit selection and verification samples for finishes, colors, and textures.

E. Quality Assurance Submittals: Submit the following
1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
2. Manufacturer's Instructions: Manufacturer's installation and maintenance instructions.

F. Maintenance Information: Maintenance information for installed products in accordance with Division 1 sections.
1. Methods for maintaining installed products.
2. Precautions against cleaning materials and methods detrimental to finishes and performance.

G. Warranty: Warranty documents specified herein.

1.04 QUALITY ASSURANCE:

A. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installing work similar to that required for this project.

B. Regulatory Requirements
1. Fire Performance characteristics: Provide resilient wall base with the following Fire performance characteristics as determined by testing products in accordance with ASTM method (and NFPA method) indicated below by a certified testing laboratory or another testing and inspecting agency acceptable to authorities having jurisdiction.

a. ASTM E648 (NFPA 253), Critical Radiant Flux of Floor Covering Systems; Class 1, Greater than 0.45 W/cm^2.
b. ASTM E662 (NFPA 258), Specific Optical Density of Smoke Generated by Solid Materials; < 450.

C. Single-Source Responsibility: Obtain resilient wall base tile and manufacturer's recommended adhesive from a single supplier.

D. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, Manufacturer's conditions, recommended adhesive depending on product, substrate type and type of installation, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with requirements in Division 1.

1.05 DELIVERY, STORAGE AND HANDLING:

A. General: Comply with requirements in Division 1.

B. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.

C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with Identification labels intact.

D. Storage and Protection: Store materials protected from exposure to harmful weather conditions and acclimated to site conditions at temperature and humidity conditions recommended by manufacturer.

1.06 PROJECT CONDITIONS:

A. Environmental Requirements/Conditions: In accordance with manufacturer's recommendations, areas to receive rubber flooring shall be clean, fully enclosed, weather tight with the permanent HVAC set at a uniform temperature of 65º - 85º F for 48 hours prior to, during and thereafter installation of rubber flooring. Rubber flooring and adhesive shall be conditioned in the same manner. Rubber flooring/tile must be un-boxed at least 48 hours prior to installation in the areas in which it will be installed.

1.07 SEQUENCING AND SCHEDULING:

A. Finishing Operations: Install resilient wall base after finishing operations, including floor covering, painting and ceiling operations, have been completed.

1.08 MAINTENANCE:

A. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1, Closeout Submittals Section.

B. Quantity: Furnish quantity of resilient wall base equal to 5% of amount to be installed.

C. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.

D. Maintenance of finished resilient wall base to be conducted per Manufacturer's Maintenance Guide.

1.09 WARRANTY:

A. Manufacturer's Materials Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

1. Warranty: 1 year limited warranty commencing on Date of Substantial Completion. Notice of any defect must be made in writing to manufacturer within 30 days after buyer learns of the defect.

PART 2 - PRODUCTS

2.01 RESILIENT WALL BASE

Flexco, Johnsonite, Roppe, Forbo, Mannington, Burke OR Approved Equal.

A. Test results
   1. ASTM D570, Water Absorption of Plastics; < 0.15%.
   2. ASTM E84 (NFPA 255), Surface Building Characteristics of Building Materials; Class C.
   3. ASTM E648 (NFPA 253), Critical Radiant Flux; Class 1, > 1.0 W/cm^2.
   4. ASTM E662 (NFPA 258), Specific Optical Density of Smoke Generated by Solid Materials; Passes.
   5. ASTM F925, Resistance to Chemicals; Passes, List Available.
   6. ASTM F1515, Light Stability; Excellent.
   7. ASTM F1861, Standard Specification for Resilient Wall Base - Types TS, TP & TV, Group 1 & 2, Styles A&B; (Federal Specification SSW40a, Type II, Styles A&B).
   8. NFPA 101 Life Safety Code, Wall Base; Interior floor trim material used at the junction of the wall and the floor to provide a functional or decorative border, and not exceeding 6 in. (150 mm) in height shall meet the requirements for the interior wall finish for its location or the requirements for Class II interior floor finish as described (CFR > .22 W/cm^2 / < .45 W/cm^2) using ASTM E 648. If Class I floor finish is required (CFR > .45 W/cm^2), the interior floor trim shall be Class I.

B. Products:
   1. **Resilient Base - RB:** Base 2000; Colors: See Color Legend in drawings.
      a. Complies with ASTM F 1861 Type TP (Thermoplastic Rubber), Group 2 (Layered).
      b. Profile:
         1) Standard Toe (Cove base)
      c. Height:
         1) 4” (101.6 mm)
      d. Length:
         1) 120’ (36.57 m) Coils (4 foot pieces are not acceptable)
      e. Thickness: 1/8” (3.175 mm)
      f. Corner Installation (select one):
         1) Preformed inside and outside corners.

C. Resilient stair treads and risers:
   1. Heavy Duty Radial II , One-piece tread with riser: equal to Flexco model #1776 - with visually impaired contrast 2" strip.
      a. Contrast strip to be equal to Flexco ribbed rubber insert, model RVI.
      b. Provide stair nosing equal to Flexco top set stair nosing #189 at top step at stage.

PART 3 - EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS:

A. Compliance: Comply with manufacturer’s requirements as published in Flexco installation instructions.

B. Adhesive: As recommended by manufacturer for substrate and use.

C. Caulking: Color matching caulking as recommended by manufacturer.

3.02 EXAMINATION:

A. Site Verification of Conditions: Confirm substrate conditions (which have been previously addressed under other sections) are acceptable for product installing in accordance with manufacturer's instructions.

B. Material Inspection: In accordance with manufacturer's installing requirements, visually inspect materials prior to installing. Material with visual defects shall not be installed.

3.03 PREPARATION:

A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage while installing.

B. Substrate Preparation: Prepare substrate to be smooth, rigid, flat, level, permanently dry, clean and free of foreign materials such as paint, dust, grease, oils, solvent, old adhesive residue, vinyl wall coverings, non-porous surfaces and all other contaminants that may interfere with adhesive bond.

C. Do not install over existing floor covering or over substrates not approved by manufacturer.

3.04 INSTALLING:

A. Refer to manufacturer's installation instructions for specific resilient wall base detailed specifications on installing.
   1. Accessories: Architect shall specify manufacturers' color coordinated accessories as required, including (but not limited to) resilient wall base, stair nosing, reducers or other edgings, welding rods for heat welded seams.

3.06 PROTECTION:

A. Protection: Protect installed product and finish surfaces from damage during construction. Remove and legally dispose of protective covering at time of substantial completion.

B. Restrict cleaning for first 72 hours.

3.07 INITIAL MAINTENANCE PROCEDURES:

A. General: Include in contract sum cost for initial maintenance procedures and execution by professional maintenance personnel after resilient wall base has been installed for 72 hours as specified in the Johnsonite maintenance instructions.

3.08 CLEANING:

A. Cleaning: See manufacturer's maintenance instructions. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of.

END OF SECTION 096513

SECTION 099100 – PAINTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and Division 1 Specification Sections, apply to this section.

1.02 DESCRIPTION OF WORK

A. Painting and finishing of interior and exterior items and surfaces, unless otherwise indicated.

B. Includes field painting of bare and covered pipes and ducts (including color coding), and hangers, exposed steel and iron work, and primed metal surfaces of equipment installed under mechanical and electrical work.

C. Paint exposed surfaces, except as otherwise indicated, whether or not colors are designated. If not designated, colors will be selected by Architect from designer colors available for the coatings required.

D. See Section 099600 for textured coatings to be utilized on the exterior of the building.

1.03 WORK NOT INCLUDED: Unless otherwise indicated, shop priming of ferrous metal items and fabricated components are included under their respective trades. Pre-finished items, are not included.

A. Unless otherwise indicated, painting not required on surfaces of concealed areas except for piping, equipment and other such items within concealed spaces. Finished metals such as anodized aluminum, stainless steel, bronze, and similar metals will not be painted. Do not paint any moving parts of operating units, or over any equipment identification, performance rating, name or nomenclature plates or code-required labels.

1.04 RELATED SECTIONS

A. Section 064023 - Interior Architectural Woodwork
B. Section 081113 - Steel Doors and Frames
C. Section 092900 - Gypsum Drywall

1.05 FLAME SPREAD RATING

A. Class A (0-25) over non-combustible surfaces.

1.06 SUBMITTALS: In addition to manufacturer's data, application instructions, and label analysis for each coating material, submit samples for Architect's review of color and texture only. Resubmit samples if requested until required sheen, color and texture is achieved.

A. On 8" x 8" hardboard, provide samples of each color and material, with texture to simulate finish conditions.

B. On actual wall surfaces and other building components, duplicate painted finishes of acceptable samples, as directed by Architect. Final acceptance of paint color and texture shall be from wall sample.

1.07 PROJECT CONDITIONS

A. Do not apply paint in rain, fog or mist or when relative humidity exceeds 85%. Do not apply paint to damp or wet surfaces or before the building is weathered in.

1.08 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner. Furnish Owner with 1 gal. of each material and color applied.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Provide specified paint by Sherwin-Williams Company OR approved equal by one of the following paint manufacturers:
   1. PPG.
   2. Benjamin Moore.

2.02 PAINT MATERIALS – GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates recommended by manufacturer.

B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

2.03 PAINT SCHEDULE

A. **Exterior Surfaces:**

1. **Galvanized Metal (Exterior): Semi-Gloss Finish**
   1st Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   2nd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   (2.5-4 mils dry per coat; VOC 0 g/L)

2. **Ferrous Metal (Exterior) (Shop Primed Metal):**
   1st Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   2nd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   (2.5-4 mils dry per coat; VOC 0 g/L)

3. **Galvanized Metal (Exterior):** Metal framing for aluminum sunshades
   1st Coat: S-W ProCryl Universal Metal Primer, B66-300 series
   2nd Coat: S-W BondPlex aluminum finish B71S200

4. **Gypsum Drywall (Vapor Barrier): Exterior Face of 2nd Layer of Drywall on 2hr Wall in Bay 1 & Storage Room #111**
   1st Coat: S-W Moisture Vapor Barrier Interior Latex Primer/Sealer, B72W00011 White
   (2.1 mils dry)
   2nd Coat: S-W Moisture Vapor Barrier Interior Latex Primer/Sealer, B72W00011 White
   (2.1 mils dry)

B. **Interior Surfaces**:

1. **Gypsum Drywall (Interior):**
   1st Coat: S-W ProMar 200 Zero VOC Latex Primer, B28W2600
   (4 mils wet, 1.5 mils dry; Zero VOC)
   2nd Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series
   3rd Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series
   (4 mils wet, l.6 mils dry per coat; Zero VOC)

2. **Gypsum Drywall (Wet Areas or where EP-Epoxy Paint is scheduled on the Finish Plans)**:
   Semi-Gloss Finish
   1st Coat: S-W ProGreen 200 Interior Latex Primer, B28W600
   (4 mils wet, 1.5 mils dry; VOC 49 g/L, 0.36 lb/gal)
   2nd Coat: S-W ProIndustrial Pre-Catalyzed Waterbased Epoxy, K46

3rd Coat: S-W ProIndustrial Pre-Catalyzed Waterbased Epoxy, K46
(4.0 mils wet, 1.5 mils dry per coat; VOC 155 g/L, 1.29 lb/gal)

3. **Galvanized Metal (Interior)**:
   Primer: S-W Pro-Cryl Universal Primer, B66-310 Series
   (5.0-10.0 mils wet, 2.0-4.0 mils dry; VOC <100 g/L, <0.93 lb/gal)
   1st Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   2nd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   (2.5-4 mils dry per coat; VOC 0 g/L)

4. **Ferrous Metal (Interior)**:
   Primer: S-W Pro-Cryl Universal Primer, B66-310 Series
   (5.0-10.0 mils wet, 2.0-4.0 mils dry; VOC <100 g/L, <0.93 lb/gal)
   1st Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   2nd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   (2.5-4 mils dry per coat; VOC 0 g/L)

5. **Painted Woodwork - Trim, Doors, Windows (Interior)**:
   1st Coat: S-W PrepRite ProBlock Interior/Exterior Latex Primer Sealer, B51 Series
   (4 mils wet, 1.4 mils dry; 96 g/L, 0.80 lb/gal)
   2nd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   3rd Coat: S-W PRO Industrial Acrylic Semi-Gloss Coating, B66-650 Series
   (2.5-4 mils dry per coat; VOC 0 g/L)

6. **Wood – Transparent Finish (Interior)**:
   Polyurethane System
   1st Coat: S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series
   2nd Coat: S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series
   (400-500 sq ft/gal; VOC 311 g/L, 2.50 lb/gal)

7. **Wood – Semi-Transparent Finish (Interior)**:
   Polyurethane (topcoat)
   1st Coat: S-W Minwax Wood Finish 250 VOC Stains
   (500 sq ft/gal; VOC <250 g/L)
   2nd Coat: S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series
   3rd Coat: S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series
   (400-500 sq ft/gal; VOC 311 g/L, 2.50 lb/gal)

PART 3 - EXECUTION

3.01 EXAMINATION:

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application.
   1. Proceed with paint application only after unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
   2. Start of painting will be construed as Applicator's acceptance of surfaces and conditions within a particular area.
   3. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.

3.02 PREPARATION

A. Remove hardware and accessories, machined surfaces, plates, lighting fixtures and similar items in place and not to be finish-painted or provide surface-applied protection. Reinstall removed items and remove protective coverings at completion of work.

B. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer=s written instructions for each particular substrate condition and as specified.

1. Cementitious Surfaces: Prepare concrete, concrete masonry, cement plaster and surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation. Determine alkalinity and moisture content of surfaces to be painted. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's printed directions.

2. Wood: Clean surfaces of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth, and dust off.
   a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After primer, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand
   b. Prime, stain, or seal wood to be painted immediately upon delivery. Prime edges, ends, faces, undersides, and backsides of wood, including cabinets, counters, cases, and paneling.
   c. Seal tops, bottoms, and cut-outs of unprimed wood doors with a heavy coat of varnish or sealer immediately upon delivery.

C. Ferrous Metals: Clean non-galvanized ferrous metal surfaces that have not been shop-coated; remove oil, grease, dirt, loose mill scale and other foreign substances. Use solvent or mechanical cleaning methods that comply with recommendations of the Steel Structures Painting Council. Touch-up shop-applied prime coats that have been damaged, and bare areas. Wire-brush, clean with solvents and touch-up with the same primer as the shop coat.

D. Galvanized Surfaces: Clean galvanized surfaces with non-petroleum based solvents so that surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock, by mechanical methods.

E. Material Preparation: Mix and prepare paint materials according to Manufacturer’s written instructions.

3.03 APPLICATION:

A. Apply painting and finishing materials in accordance with manufacturer's directions. Use applicators, and techniques best suited for materials and surfaces to which applied.

B. Apply additional coats when undercoats, stains or other conditions show through final paint coat, until paint film is of uniform finish, color and appearance.

C. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before equipment is installed.

D. Paint interior surfaces of ducts, where visible through registers or grilles, flat, non-specular black.

E. Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.

F. Sand lightly between exceeding enamel or varnish coats.

G. Omit first coat (primer) on metal surfaces which have been shop-primed and touch-up painted, unless otherwise specified.

H. Apply prime coat to material which is required to be painted or finished, and which has not been prime coated by others.

I. Apply each material at not less than manufacturer's recommended spreading rate, to provide a total

dry film to thickness of not less than 4.0 mils for entire coating system of prime and finish coats for 3-coat work.

J. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer=s recommended spreading rate to achieve dry film thickness indicated. Provide total dry film thickness of the entire system as recommended by manufacturer.

3.05 PROTECTION:

A. Protect work of other trades. Correct any painting related damages by cleaning, repairing or replacing, and refinishing, as directed by Architect.

3.06 COORDINATION:

A. Provide finish coats which are compatible with prime paints used. Provide barrier coats over incompatible primers where required. Notify Architect in writing of anticipated problems using specified coatings with substrates primed by others.

3.07 COMPLETED WORK

A. Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

END OF SECTION 099100

PAGE LEFT BLANK INTENTIONALLY

SECTION 101440 - SIGNAGE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Interior signage of the following types:
1. Lucent, custom construction.

1.2 REFERENCES

A. ICC/ANSI A117.1 - Accessible and Useable Buildings and Facilities.

B. USATBCB - Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).

1.3 SUBMITTALS

A. Submit under provisions of Section 013300.

B. Product Data: Manufacturer's descriptive literature.

C. Shop Drawings: List sign styles, lettering, locations and dimensions of each interior sign. Contractor shall submit a sign schedule with doors listed in numerical order for review and approval. Shop drawings shall include a scaled diagram of each type of sign specified.

D. Selection Samples: One complete set of color chips representing manufacturer's full range of available colors.

E. Verification Samples: Two full size samples, representing type, style and color specified including method of attachment.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with requirements of ICC/ANSI A117.1 and ADAAG.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inspect products upon receipt. Store products in manufacturer's packaging until ready for installation.

1.6 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Best Sign Systems, Inc.; 1202 N. Park Avenue, Montrose, CO 81401. ASD. TEL: (800) 235-BEST. FAX (970) 249-0223. Email: sales@bestsigns.com www.bestsigns.com.

B. Requests for substitutions will be considered in accordance with provisions of Section 016000.

2.2 SIGNS

A. ADA-Compliant Interior Signage, Custom Design.

2.3 INTERIOR SIGNAGE

A. Manufacturer's standard monolithic tactile plaque constructed utilizing a thermoforming process, which provides a fully homogeneous plaque sign. The sign body, face, raised text and Braille are compression molded to form a single dimensional component that results in a sign surface that exhibits a toughness that resists scratching, cracking, gouging and graffiti.

1. Style: Custom Lucent Sign by Best Sign Systems, Inc
2. Material: Extruded Clear Acrylic
3. Sign Thickness: 1/4 inch (6mm)
4. Tactile Characters/Symbols: Raised 1/32 inch (1 mm) from sign plate face
5. Construction: One-piece; added on or engraved characters not acceptable
6. Lettering Style: Typeface as selected from the manufacturer's standard sans serf or simple serf typefaces, upper case letters, minimum height 5/8", maximum height 2"
7. Braille: Grade 2 braille, placed directly below last line of letters or numbers
8. Contrast: Letters, numbers and symbols shall contrast with background.
9. Bevel Options: Classic
10. Profiles: Standard Rectangular
11. Color of Background: Colors chosen from 73 Standard Paint colors, subsurface or surface applied
12. Color of Text and Raised Characters: As selected from 73 standard colors
13. Surface Texture: Stipple

2.4 INTERIOR SIGNAGE SCHEDULE

A. All doors shall receive a Type "A" sign, unless specified otherwise.

B. All restrooms shall receive a Type "B" sign.

C. All offices shall receive a Type "C" sign.

D. All stairs shall receive a Type "B" sign with universal stair symbol in place of the universal accessibility symbol.

E. See attached signage schedule. Note that contractor shall provide a Type "A" sign for every door, even if they are not listed in the attached schedule.

2.5 EXTERIOR SIGNS:

A. Light gauge truss framing: Provide a sign with a Maltese Cross measuring 8 inches horizontally and 8 inches vertically, of a bright red reflective color, designed in accordance with Figure 1. The symbol shall be placed within 24 inches to the left of the main entry door of each building and be permanently attached to the face of the structure on a contrasting background, or be mounted on a contrasting base material which is then permanently attached to the face of the structure. Mounting: The distance above the grade, walking surface or the finished floor to the bottom of the symbol shall be not less than 4 feet (48 in.) and to the top of the symbol shall be not more than 6 feet (72 in.). The symbol must be mounted prior to receiving a certificate of occupancy.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine installation areas to ensure that conditions are suitable for installation.

B. Examine signage for defects prior to installation. Do not install damaged signage.

3.2 PREPARATION

A. Verify mounting heights and locations for interior signage will comply with referenced standards.

B. Clean mounting locations of dirt, dust, grease or similar conditions that would prevent proper installation.

3.3 INSTALLATION

A. Install signs level, plumb, without distortion, and in proper relationship with adjacent surfaces using manufacturer's recommended standard mounting system.
   1. Mount with vinyl foam tape.

B. Remove adhesive from exposed sign surfaces as recommended by manufacturer.

C. Clean signs after installation as recommended by manufacturer.

D. Replace damaged products before Substantial Completion.

3.4 ADA GUIDELINES FOR SIGNAGE

A. Room Identification Signs: Signs which designate permanent rooms or spaces shall comply with the following guidelines:
   1. Raised Copy - Letters and numerals shall be raised 1/32" upper case, sans serif or simple serif typestyle.
   2. Symbols - Symbols shall be accompanied by the equivalent verbal description placed directly below the symbol. The border dimension of the symbol shall be 6" minimum in height.
   3. Braille Tags - Grade 2 Braille shall be on all signs, as required.
   4. Colors - The characters and backgrounds of all signs shall be of matte or other non-glare finish. Characters and symbols shall contrast with light characters on a dark background or dark characters on a light background. Colors to be as selected by the Architect from the manufacturer's standard colors.

B. Directional and Information Signs: Signs which provide direction to, or information about, functional spaces of the building shall comply with the same guidelines as those set for Room Identification Signs with the following additions and exceptions.
   1. Character Proportion - Letters and numerals on sign shall have a width to height ratio between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10.
   2. Character Height - Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an upper case X. Lower case characters are permitted. Any signs that are suspended or projected overhead shall have characters at least three inches high and shall maintain a minimum clearance of 80 inches from finished floor.
   3. Raised Copy - Directional and Informational signs are NOT required to use raised copy or braille tags.

C. Signage Mounting Location and Height: Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, including at double leaf doors, signs shall be placed on the nearest adjacent wall. Mounting height shall be 60 inches (1525 mm) above the finish floor to the centerline of the sign. Mounting location for such signage shall be so that a person may

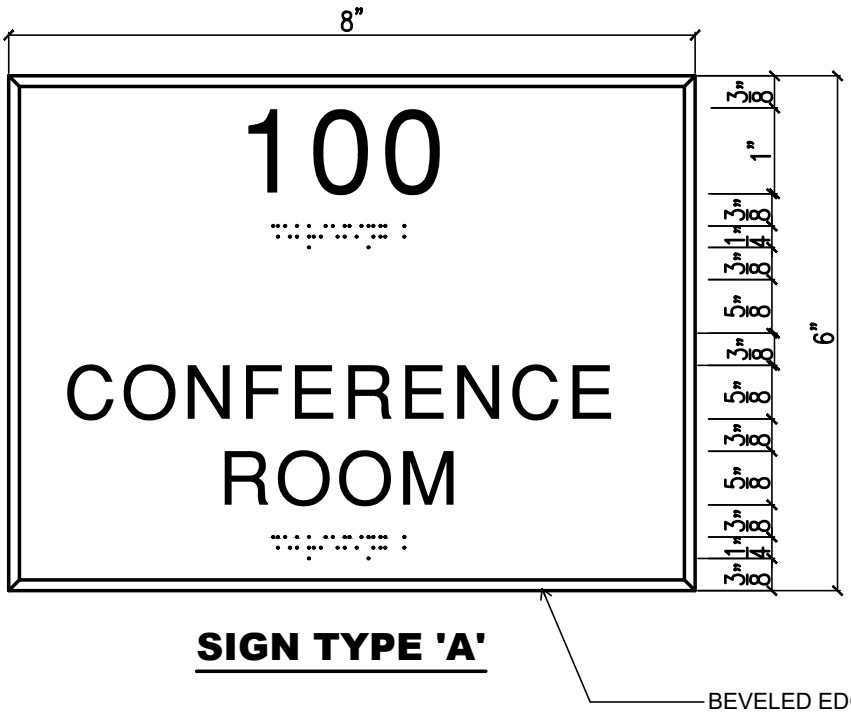
approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

Figure 1:



Light-frame “Roof” only

END OF SECTION 101440



SIGN TYPE 'A'

CRA ARCHITECTS

Clemons, Rutherford
& Associates Inc.
▪
2027 Thomasville Road
Tallahassee, Florida 32308
▪
(850) 385-6153
Fax (850) 386-8420

SIGNAGE TYPES

PROJECT: WAKULLA COUNTY FIRE & EMS FACILITY
CRAWFORDVILLE, FL

CRA PROJECT NO.: 17010



SIGN TYPE 'B'

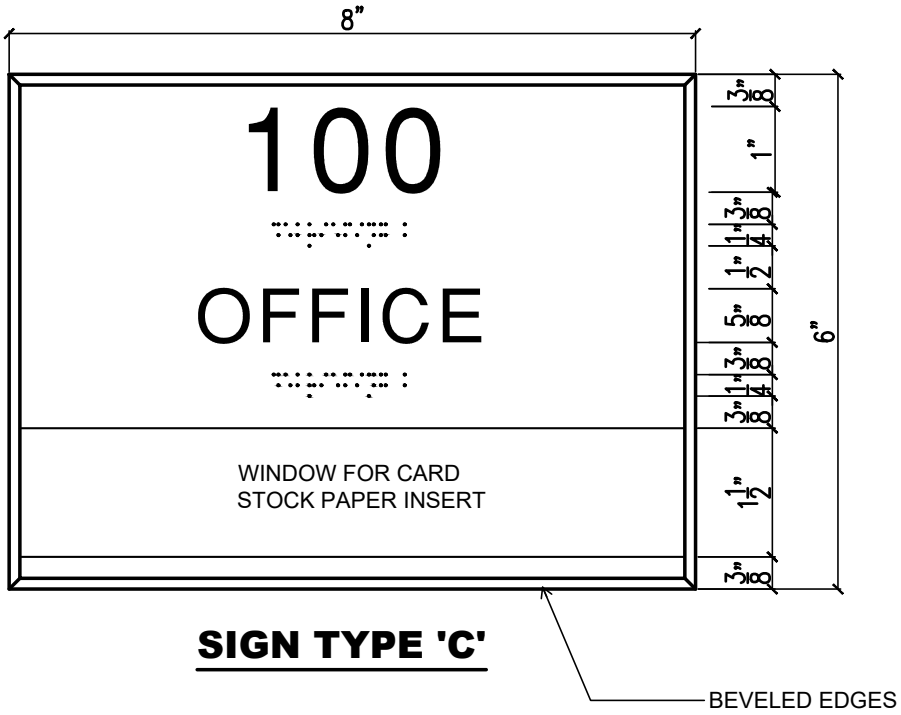
CRA ARCHITECTS

Clemons, Rutherford
& Associates Inc.
▪
2027 Thomasville Road
Tallahassee, Florida 32308
▪
(850) 385-6153
Fax (850) 386-8420

SIGNAGE TYPES

PROJECT: WAKULLA COUNTY FIRE & EMS FACILITY
CRAWFORDVILLE, FL

CRA PROJECT NO.: 17010



SIGN TYPE 'C'

CRA ARCHITECTS

Clemons, Rutherford
& Associates Inc.
2027 Thomasville Road
Tallahassee, Florida 32308
(850) 385-6153
Fax (850) 386-8420

SIGNAGE TYPES

PROJECT: WAKULLA COUNTY FIRE & EMS FACILITY
CRAWFORDVILLE, FL

CRA PROJECT NO.: 17010

PAGE LEFT BLANK INTENTIONALLY

SECTION 101600 - TOILET PARTITIONS

PART 1 - GENERAL

1.01 SUBMITTALS: Submit manufacturer's data and installation instructions, shop drawings showing layout toilet partitions and samples of solid plastic for color selection.

1.02 PERFORMANCE REQUIREMEMTS:

A. Fire Resistance: Partition materials shall comply with the following requirements, when tested in accordance with the ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials:

1. Smoke Developed Index: Not to exceed 450
2. Flame Spread Index: Not to exceed 75
3. Material Fire Ratings:
   a. National Fire Protection Association (NFPA): Class B
   b. International Code Council (ICC): Class B

1.03 QUALITY ASSURANCE

A. Manufacturer's Qualifications: A company regularly engaged in manufacture of products specified in this section, and whose products have been in satisfactory use under similar service conditions for not less than 5 years.

B. Installer's Qualifications: A Company or Individual, regularly engaged in installation of products specified in this Section, with a minimum of 5 years experience.

1.04 WARRANTY: Scranton Products (Santana/Comtec/Capitol), guarantees its plastic against breakage, corrosion, and delamination under normal conditions for 25 years from the date of receipt by the customer. If materials are found to be defective during that period for reasons listed above, the materials will be replaced free of charge. (Labor not included in warranty.)

PART 2 - PRODUCTS

2.01 MANUFACTURER: Provide toilet partitions as manufactured by Scranton Products (Santana/Comtec/ Capitol) OR approved equal.

2.02 MATERIAL: Doors, panels and pilasters shall be 1" thick constructed from High Density Polyethylene (HDPE) resins. Partitions shall be fabricated from polymer resins compounded under high pressure, forming a single component which is waterproof, nonabsorbent and has a self-lubricating surface that resists marks from pens, pencils, markers and other writing instruments. All plastic components shall be covered with a protective plastic masking.

2.03 CONSTRUCTION:

A. Doors, panels, and pilasters shall be 1" thick, seamless construction with eased edges.

B. Doors and dividing panels shall be 55" high and mounted at 14" above the finished floor. An aluminum heat sinc shall be fastened to the bottom edges.

C. PILASTER: Pilaster shall be 82 inches high and mounted to panels and walls with continuous wall brackets. Pilasters shall contain 2 level adjusting bolts on the bottom and shall be fastened to the floor with a 3 inch high 20 gauge stainless steel shoe anchored as per manufacturer's recommendation. Pilasters shall be overhead braced with anti-grip heavy extruded aluminum (6463 T5 alloy) with bright dip anodized finish headrail.

D. WALL BRACKETS: Shall be 54 inches long and made of heavy aluminum extrusion (6463-T5 alloy) with bright dip anodized finish. Wall brackets shall be pre-drilled by manufacturer with holes spaced every 10 inches along full length of brackets. Attachments shall be made as per

manufacturer's recommendations. Provide continuous shim, matching toilet partitions, as necessary above tile wainscot.

E. Headrail shall be made of heavy-duty extruded aluminum (6463-T5 alloy) with anti-grip design and integrated curtain track. The headrail shall have a clear anodized finish and shall be fastened to the headrail bracket by a stainless steel tamper resistant torx head sex bolt, and fastened at the top of the pilaster with stainless steel tamper resistant torx head screws.

F. Headrail brackets shall be 20 gauge stainless steel with a satin finish and secured to the wall with a stainless steel tamper resistant torx head screws.

2.04 HARDWARE AND ACCESSORIES: Manufacturer's standard, heavy-duty operating hardware and accessories, non-ferrous cast alloy with satin chrome finish. Furnish for each door, the following:

A. Hinges: Shall be 8 inches and made of heavy aluminum extrusion (6463-T5 alloy) with bright dip anodized finish with wrap around flanges, surface mounted to the doors with stainless steel tamper resistant torx screws.

B. Door strike/keeper shall be 6" long and made of heavy-duty extruded aluminum (6436-T5 alloy) with a bright dip anodized finish and secured to the pilasters with stainless steel tamper resistant torx head sex bolts. Bumper shall be made of extruded black vinyl.

C. Latch and housing shall be made of heavy-duty extruded aluminum (6463-T5 alloy). The latch housing shall have a bright dip anodized finish, and the slide bolt and button shall have a black anodized finish.

D. Coat Hook and Bumper: Manufacturer's standard unit, rubber-tipped at each door.

E. Door Pulls: Manufacturer's standard on both side of door.

F. Door Pulls (Handicapped Stalls): **ALL** handicapped toilet partition doors to have ADA approved pull handle. Provide cast door pull, on both sides of door, #137 with US28 finish by Rockwood OR approved equal. Mounting shall be with thru bolt.

G. Heat Sinc: Aluminum edging strips shall be fastened to the bottom edge of all doors and panels.

2.05 ANCHORAGES AND FASTENERS: Manufacturer's standard theft-proof exposed fasteners, finished to match hardware.

2.06 FABRICATION:

A. Floor-Supported Pilasters: 1" thick, with galvanized steel anchorage complete with threaded rods, lock washers, and leveling nuts.

B. Doors and Panels: Not less than 1" thick units, size shown. Doors to meet ADA requirements.

PART 3 - EXECUTION

3.01 INSTALLATION: Install partitions rigid, straight, plumb and level in accordance with manufacturer's printed instructions. Set units with not more than 1/2" between pilasters and panels, and not more than 1" clearances between panels and walls.

3.02 HARDWARE ADJUSTMENTS: Adjust and lubricate hardware for proper operation after installation.

A. Set hinges on in-swing doors to hold doors open approximately 30 deg from the closed position when unlatched.

B. Set hinges on out-swing doors to return to fully closed position.

3.03 CLEANING AND FINAL ADJUSTMENTS: Perform final adjustments to leveling devices, door hardware, and other operating parts. Clean exposed surfaces and touch up minor finish imperfections using materials and methods recommended by partition manufacturer.

3.04 REPLACE DAMAGE units which cannot be satisfactorily field repaired, as directed by Architect.

END OF SECTION 101600

PAGE LEFT BLANK INTENTIONALLY

SECTION 102800 - TOILET AND BATH ACCESSORIES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and Division 1 Specification Sections apply to this section.

1.02 SUBMITTALS

A. Product Data: For each type of product included. Include the following:

1. Construction details and dimensions.
2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
3. Material and finish descriptions.
4. Manufacturer's warranty.

B. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.03 STRUCTURAL REQUIREMENTS: All grab bars and their mounting devices shall withstand a downward load of at least 250 lbs. of force when tested according to method in ASTM F 446.

1.04 WARRANTY

A. Special Mirror Warranty: Manufacturer=s standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within a 5-year period from date of Substantial Completion.

PART 2 – PRODUCTS

2.01 MANUFACTURER: Provide toilet and bath accessories as manufactured by Bobrick OR approved equal.

2.02 GENERAL: Provide toilet and bath accessories as scheduled. Install units at locations and heights as indicated, plumb and level, firmly anchored, in accordance with manufacturer's instructions.

2.03 MATERIALS:

A. Stainless Steel: AISI Type 302/304, with polished No. 4 finish, 22 gage minimum, unless otherwise indicated.

B. Mirror Glass: 1/4" thick, Type I, Class 1, Quality q2, conforming to FS DD-G-451, with silvering, copper coating, and protective organic coating complying with FS DD-M-411.

B. Galvanized Steel Sheet: ASTM A 527, G60.

C. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.

E. Fasteners: Screws, bolts, and other devices of same material as accessory unit or of galvanized steel where concealed.

2.04 GENERAL FABRICATION: Stamped names or labels on exposed faces of toilet and bath accessory units are not permitted, however unobtrusive labels indicating manufacturer and model number are required on surface not exposed to view. Wherever locks are required for particular type of accessory, provide same keying throughout project. Furnish two keys for each lock, properly identified.

A. Mirror Fabrication: Fabricate frames for glass mirrors to accommodate wood, felt, plastic, or other glass edge protection material. Provide mirror backing and support system which will permit rigid, tamperproof glass installation and prevent accumulation of moisture.

B. Surface-Mounted Accessories: Fabricate units with tight seams and joints, exposed edges rolled.

Hang doors or access panels with continuous piano hinge or minimum of two 1-1/2" pin hinges of same metal as unit cabinet. Provide concealed anchorage wherever possible.

C. Recessed Toilet Accessories, General: Except where otherwise indicated, fabricate units of all welded construction, without mitered corners. Hang doors or access panels with full-length stainless steel piano hinge. Provide anchorage that is fully concealed when unit is closed.

2.05 TOILET ACCESSORY ITEMS: Provide the following toilet accessories by Bobrick Washroom Equipment Inc. OR approved equal, unless otherwise noted.

A. Grab Bars: Grab bar and concealed mounting plates shall be constructed of type-304 stainless steel with satin finish (or satin finish with peened gripping surface; add .99 suffix to model number). Grab bar shall have wall thickness of 18-gauge (1.2mm) and outside diameter of 1-1/2" (38mm). Distance from inside of grab bar to finished wall shall be 1-1/2" (38mm). Concealed mounting flanges shall be 1/8" (3mm) thick stainless-steel plate, 2" x 3-1/8" (50 x 80mm) and equipped with two screws holes for wall attachment. Flange covers shall be 22 gauge (0.8mm), 3-1/4" (85 mm) diameter x ½" (13mm) deep and shall snap over mounting flanges to conceal mounting screws. Grab bar shall have 90º return to flange. Ends of grab bar shall pass through flanges and be heliarc welded to form one structural unit. Grab bar shall comply with barrier-free accessibility guidelines (including ADAAG in the U.S.A.) for structural strength. ***(B-6806-36; B-6806-42; Two Wall Grab Bar B-68616 (24" x 36"; Three wall grab bar- see enlarged plans for size.)***

B. Stainless Steel Framed Mirrors: Mirror shall have a one-piece type-430 stainless steel channel frame, ½" x ½" x 3/8" (13 x 13 x 9.5mm), with 90◦ mitered corners; all exposed surfaces shall have bright polished finish. Select float glass mirror shall be guaranteed for 15 years against silver spoilage. Corners shall be protected by friction-absorbing filler strips and the back shall be protected by full-size, shock-absorbing, water resistant, nonabrasive, 3/16" (5mm) thick polyethylene padding. Galvanized steel back shall have integral horizontal hanging brackets located at top and bottom for mounting on concealed rectangular wall hanger to prevent the mirror from pulling away from the wall. Locking devices secure mirror to concealed wall hangar. Mirror shall be removable from the wall. ***(B-165 2436 18" x 30" in single restrooms.)***

C. Surface Mounted Multi-Roll Toilet Tissue Dispenser: Surface-mounted multi-roll toilet tissue dispenser shall be constructed of type-304 stainless steel with all-welded construction including dispensing mechanism, inner housing and cam; all exposed surfaces shall have satin finish. Front of toilet tissue dispenser shall be 22-gauge (0.8mm), drawn, one-piece, seamless construction; and shall be equipped with a tumbler lock. Unit shall dispense two 5-1/4" (135mm) diameter (1800 sheets) toilet tissue rolls. Roll held in reserve shall automatically drop into place after bottom roll is depleted. Unit shall be equipped with two theft-resistant, one-piece, molded ABS spindles. ***(B-2888)***

D. Surface Mounted Soap Dispenser: Surface-mounted soap dispenser shall be constructed of type-304 stainless-steel with satin finish. Corrosion-resistant valve shall dispense commercially marketed all-purpose hand soaps. Valve shall be operable with one hand and with less than 5 pounds of force (22.2 N) to comply with barrier-free accessibility guidelines (including ADAAG in the U.S.A.). Container shall be equipped with a clear acrylic refill-indicator window; a locked, hinged stainless steel lid for top filling; and shall have a capacity of 40-fl oz (1.2-L). Unit shall have concealed, vandal-resistant mounting. ***(B-2111)***

E. Surface Mounted Paper Towel Dispenser: Surface-mounted roll-paper-towel dispenser shall be type-304 stainless steel with all-welded construction; exposed surfaces shall have satin finish.

Door shall be secured to cabinet with a full-length stainless-steel piano-hinge. Unit shall be equipped with a tumbler lock keyed like other Bobrick washroom accessories. Towel mechanism accommodates up to 8" (205mm) wide, 8" (205mm) diameter, non-perforated paper towel rolls. Touch-Free pull towel mechanism dispenses one 12" (305mm) length of towel paper per pull. User only touches the paper. Automatic transfer shall dispense stub roll up to 3-1/2" (90mm) diameter before new roll is dispensed. Equipped with paper towel feed wheel for use in filling the dispenser, for user to advance paper should it become necessary to feed paper through dispenser. Paper towels are dispensed with pull force to operate 1.8 pounds (8.0 N) to comply with accessible design guidelines (including ADAAG in U.S.A.). ***(B-2860)***

PART 3 – EXECUTION

3.01 INSTALLATION:

A. Install toilet accessory units in accordance with manufacturer's instructions, using fasteners appropriate to substrate and recommended by manufacturer of unit. Install units plumb and level, firmly anchored in locations indicated and in accordance with the requirements of ADA.

3.02 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
B. Remove temporary labels and protection coatings.
C. Clean and polish exposed surfaces according to manufacturer=s written recommendations.

END OF SECTION 102800

PAGE LEFT BLANK INTENTIONALLY

SECTION 104416 - FIRE EXTINGUISHERS, CABINETS, AND ACCESSORIES

PART 1 - GENERAL

1.01 UL-Listed Products: Provide new UL-listed fire extinguishers bearing UL "Listing Mark" for type, rating, and classification of extinguishers indicated.

1.02 Submittals: Submit product data and finish samples.

PART 2 - PRODUCTS

2.01 Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Allenco
Ansul Fire Protection, Wormald US Inc.
Badger-Powhatan
Bobrick Washroom Equipment, Inc.
J.L. Industries
Larsen's Manufacturing Co.
Modern Metal Products by Muckle
Potter-Roemer, Inc.
Samson Metal Products, Inc.
Walter Kidde, Division of Kidde, Inc.
Watrous Inc.

2.02 Fire Extinguishers: Provide fire extinguishers for each extinguisher cabinet and other locations indicated on Life Safety Plans.

A. Contractor's Option: Contractor has option to provide rated fire extinguisher cabinets in rated walls OR provide 5-sided gypsum board box in rated walls.

2.03 Multipurpose Dry Chemical Type:

A. Typical Areas: UL-rated 3A-20 B: C min., in enameled steel containers.

B. Labs, Shops, Boiler Rooms, Bulk Storage, Electrical and Equipment Rooms: UL-rated 3A-40 B: C min., in enameled steel containers.

C. Bulk Paper Storage: UL-rated 4A-60 B:C, in enameled steel containers.

D. Kitchens: UL-rated 3A-40 B:C min.

2.04 Mounting Brackets: Provide brackets for extinguishers not located in cabinets.

2.05 Fire Extinguisher Cabinets: Provide fire extinguisher cabinets where indicated, of suitable size for housing fire extinguishers of types and capacities indicated.

A. Semi-Recessed: Cabinet box (tub) recessed in walls of sufficient depth to suit style of trim indicated.

1. Exposed Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend).
   a. Rolled Edge Trim with 2-1/2 inch backbend depth.
   b. Trim Metal: Of same metal and finish as door.

B. Fully-Recessed: Cabinet box recessed in walls of sufficient depth to suit style of trim indicated.

1. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend) of 1/4 to 5/16 inch.

C. Surface Mounted: Cabinet box fully exposed and mounted directly on wall; with no trim.

2.06 Door Material and Construction: Manufacturer's standard door construction, of material indicated, coordinated with cabinet types and trim styles selected.

A. Enameled Steel: Manufacturer's standard finish, hollow steel door construction with tubular stiles and rails.

B. Identify fire extinguisher in cabinet with lettering spelling "FIRE EXTINGUISHER" applied by silkscreen method to door. Provide lettering to comply with requirements indicated for letter style, color, size, spacing, and location or as selected by Architect from manufacturer's standard arrangements. Lettering shall be vertical and red. Cabinet shall be white.

C. Door Style: Manufacturer's standard full flush solid panel of material indicated.

D. Door Hardware: Provide manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated. Provide either lever handle with cam action latch, or door pull, exposed or concealed, and friction latch. Provide concealed or continuous-type hinge permitting door to open 180 deg.

2.07 Factory Finishing of Fire Extinguisher Cabinet: Comply with NAAMM "Metal Finishes Manual" to provide uniformly finished products. Protect mechanical finishes on exposed surfaces from damage by application of strippable, temporary protective covering prior to shipment. Cabinet shall be mounted 48” A.F.F. to center of cabinet handle.

PART 3 - EXECUTION

3.01 Installation:

A. Install items included in this section in locations and at mounting heights indicated, or if not indicated, at heights to comply with applicable regulations of governing authorities.

B. Prepare recesses in walls for fire extinguisher cabinets as required by type and size of cabinet and style of trim and to comply with manufacturer's instructions.

C. Securely fasten mounting brackets and fire extinguisher cabinets to structure, square and plumb, to comply with manufacturer's instructions.

END OF SECTION 104416

SECTION 133419 – METAL BUILDING SYSTEMS

PART 1 - GENERAL

DESCRIPTION OF WORK:

Extent of pre-engineered building work is shown on drawings.

Building Type: The pre-engineered building as shown on drawings.

Manufacturer's standard components may be used, providing components, accessories, and complete structure conform to architectural design appearance shown and to specified requirements.

Concrete floor and foundations and installation of anchor bolts are specified in Division-3.

QUALITY ASSURANCE:

Design Criteria:

Structural Framing: Design primary and secondary structural members and exterior covering materials for applicable loads and combinations of loads in accordance with the Metal Building Manufacturer's Association's (MBMA) "Design Practices Manual".

Structural Steel: For the design of structural steel members, comply with the requirements of the American Institute of Steel Construction's (AISC) "Specifications for the Design, Fabrication, and Erection of Structural Steel for Buildings" for design requirements and allowable stresses.

Light Gage Steel: For the design of light gage steel members, comply with the requirements of the American Iron and Steel Institute's (AISI) "Specification for the Design of Cold Formed Steel Structural Members" and "Design of Light Gage Steel Diaphragms" for design requirements and allowable stresses.

For welded connections, comply with the American Welding Society's (AWS) "Standard Code for Arc and Gas Welding in Building Construction" for welding procedures.

Design Loads:

Pre-Engineered Metal Buildings shall be designed for wind loads per ASCE 7-93.

Design loads shall be as shown in accordance with applicable codes.

Basic design loads include, in addition to dead load, live load and wind load.

Design Wind Speed: See sheet Structural for wind speed design information.

Collateral loads include additional dead loads over and above the weight of the metal building system such as sprinkler systems and mechanical systems.

Design of structural elements shall take into consideration direct loads imposed by suspended piping, conduits or other equipment. Structural Engineer for pre-engineered building shall verify all equipment loads and locations with Mechanical Engineer of record for this project.

Design each member to withstand stresses resulting from combinations of loads that produce the maximum allowable stresses in that member as prescribed in MBMA's "Design Practices Manual".

Manufacturer's Qualifications: Provide pre-engineered metal buildings as produced by manufacturer with not less than 5 years successful experience in the fabrication of pre-engineered metal buildings of the type and quality required.

SUBMITTALS:

Shop Drawings: Submit complete erection drawings showing design loadings anchor bolts settings, sidewall, endwall, and roof framing, transverse cross sections, covering and trim details, and accessory installation details to clearly indicate proper assembly of building components. Drawings shall be signed and sealed by a Florida Registered Engineer, and shall include a statement of structural design loadings.

Shop drawings from original building are available upon request after bid.

Product Data: Submit manufacturer's product information, specifications, and installation instructions for building components and accessories.

Certification: Submit written certification prepared and signed by a Professional Engineer, registered to practice in Florida, verifying that building design meets indicated loading requirements and codes of authorities having jurisdiction.

Maintenance Stock: Furnish at least 5% excess over required amount of nuts, bolts, screws, washers, and other required fasteners for each building. Pack in cartons and store on site where directed.

DELIVERY, STORAGE, AND HANDLING:

Deliver and store prefabricated components, sheets, panels, and other manufactured items so they will not be damaged or deformed.

Stack materials on platforms or pallets, covered with tarpaulins or other suitable weathertight ventilated covering. Store metal sheets or panels so that water accumulations will drain freely. Do not store sheets or panels in contact with other materials which might cause staining.

PART 2 - PRODUCTS

2.01- ACCEPTABLE MANUFACTURERS:

Available Manufacturers: Subject to compliance with specified requirements, manufacturers offering pre-engineered building systems which may be incorporated in the work include, but are not limited to the following:

AMCA Buildings Division
American Buildings Co.
American Steel Building Co., Inc.
Butler Manufacturing Co.
Southern Structures, Inc.
Or Approved Equal

2.02- MATERIALS (GENERAL):

1) Metals:

Hot-Rolled Structural Shapes: Comply with the requirements of ASTM A36 or A529.

Tubing or Pipe: Comply with the requirements of ASTM A500, Grade B, A501, or A53.

Members Fabricated from Plate or Bar Stock: Provide 42,000 psi minimum yield strength. Comply with the requirements of ASTM A529, A570, or A572.

Members Fabricated by Cold Forming: Comply with the requirements of ASTM A607, Grade 50.

Galvanized Steel Sheet: Comply with the requirements of ASTM A446 with G90 coating. "Class" to suit building manufacturer's standards.

2.03- Paints:

Shop Primer for Ferrous Metal: Provide manufacturer's standard fast-curing lead free, abrasion resistant, rust-inhibitive primer selected for compatibility with substrates, with types of alkyd-type finish paint systems indicated and for capability to provide a sound foundation for field-applied topcoats despite prolonged exposure. Comply with performance requirements only of FS TT-P-86, Type I, II, and III. Change color of second coat to distinguish it from first.

Shop Primer for Galvanized Members: Provide manufacturer's standard zinc dust-zinc oxide primer selected for compatibility with substrate. Comply with performance requirements of FS TT-P-641.

Shop-Primed Metal Surfaces: Provide manufacturer's standard flat, lusterless alkyd enamel. Comply with the performance requirements of FS TT-E-527.

2.04- FABRICATION (GENERAL):

Design prefabricated components and necessary field connections required for erection to permit easy assembly and disassembly. Fabricated components in such a manner that once assembled, they may be disassembled, repackaged and reassembled with minimum amount of labor.

Clearly and legibly mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams and instruction manuals.

2.05- STRUCTURAL FRAMING COMPONENTS:

Rigid Frames: Fabricate rigid frames from hot-rolled structural steel. Provide built-up "I-beam" shape or open web type rigid frames consisting of either tapered or parallel flange beams. All outside and interior structural columns must be wide flange steel not to exceed W12 straight or equal to United Structures of America, Inc. Coordinate with drawings. Provide frames factory welded and shop painted. Furnish frames complete with attachment plates, bearing plates and splice members. Factory drill frames for bolted field assembly.

Provide length of span and spacing of frames as indicated. Slight variations in length of span and frame spacing may be acceptable if necessary to meet manufacturer's standard, subject to Architect's approval.

Provide rigid frames at endwalls where indicated.

End Wall Columns: Provide factory welded, shop painted endwall columns of built-up "I" shape channels or cold-formed sections. Fabricate endwall columns of not less than 14 ga. material.

Bracing:

Diagonal Bracing: Diagonal bracing in the roof shall be used to remove longitudinal loads (wind, crane, etc.) from the structure. This bracing will be furnished to length and equipped with bevel washers and nuts at each end. Provide adjustable bracing using not less than ½" diameter threaded steel rods; comply with the requirements of ASTM A36 or A572, Grade D.

Flange Braces: The compression flange of all primary framing shall be braced laterally with angles connecting to the webs of purlins or girts so that the flange compressive stress is within allowable limits for any combination of loadings.

Special Bracing: Where diagonal bracing is not permitted in the sidewall, rigid frame type portals must be placed between the frames as required. Refer to Architectural drawings for

details/dimensions required to locate portal frames. Wind bracing in the roof and/or walls need not be furnished where it can be shown that the diaphragm strength of the roof and/or wall covering is adequate to resist the applied wind forces.

Secondary Framing:

Provide not less than 16 ga. shop painted rolled formed sections for the following secondary framing members:

Purlins
Eave struts
Endwall beams
Flange bracing
Sag bracing

Provide not less than 14 ga. cold-formed galvanized steel sections for the following secondary framing members.

Base channels
Sill angles
Endwall structural members (except columns and beams)
Purlin spacers

Bolts: Comply with the requirements of ASTM A307 or A325 as necessary for design loads and connection details. Provide shop painted bolts, except when units are in direct contact with panels, provide zinc-plated or cadmium-plated bolts.

Fabrication: Shop fabricate structural framing components to the indicated size and section complete with base plates, bearing plates and other plates required for erection, welded in place. Provide all required holes for anchoring or for connections either shop drilled or punched to template dimensions.

Shop Connections: Provide power riveted, bolted or welded shop connections.

Field Connections: Provide bolted field connections.

Shop Painting: Clean surfaces to be primed of loose mill scale, rust, dirt, oil, grease, and other matter precluding paint bond. Follow procedures of SSPC-SP3 for power tool cleaning, SSPC-SP7 for brush-off blast cleaning, and SSPC-SP1 for solvent cleaning.

Prime structural steel primary and secondary framing members with the manufacturer's standard rust-inhibitive primer.

Prime galvanized members, after phosphoric acid pretreatment with manufacturer's standard zinc dust-zinc oxide primer.

2.06- ROOF AND SIDING:

A) General: Provide roofing and siding sheets formed to the general profile or configuration as indicated. Provide the following sheet metal accessories factory formed of the same material and finish as the roofing and siding.

Louvers
Flashings
Closers
Fillers
Metal expansion joints
Ridge covers

Fascias
Gutters and Downspouts

B) Basis of Design Manufacturer: **MBCI Metal Roof and Wall Systems, Division of NCI Group, Inc, OR APPROVED EQUAL**

1) PERFORMANCE REQUIREMENTS

a. General: Provide metal wall panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.

b. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.

c. Structural Performance: Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated:

i. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
ii. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of 1/240of the span with no evidence of failure.

d. **Air Infiltration**: ASTM E 1680: Maximum 0.006 cfm/sq. ft. (0.030 L/s per sq. m) at 6.24 lbf/sq. ft. (300 Pa) static-air-pressure difference.

e. **Water Penetration**: ASTM E 1646: No uncontrolled water penetration at a static pressure of 20 lbf/sq. ft. (958 Pa).

2) METAL PANEL MATERIALS

a. **Sheet**: ASTM A 792/A 792M, structural quality, Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150), prepainted by the coil-coating process per ASTM A 755/A 755M.

3) METAL WALL PANELS.

a. **Large Tapered-Rib-Profile, Exposed Fastener Metal Panels**: Structural metal panel consisting of formed metal sheet with trapezoidal major ribs with intermediate stiffening ribs symmetrically placed between major ribs, installed by lapping edges of adjacent panels.

i. Basis of Design: **MBCI, PBR Panel,** www.mbci.com/pbr.html.
ii. Coverage Width: 36 inches (914 mm).
iii. Major Rib Spacing: 12 inches (305 mm) on center.
iv. Rib Height: 1-1/4 inch (31.8 mm).
v. Nominal Coated Thickness: 26 gauge
vi. Panel Surface: Smooth
vii. Color: Color to be selected by Architect and Owner from manufacturer's standard color chips

4) METAL ROOF PANELS.

   a. **See Metal Roofing Specification, section number 076100**

5) METAL PANEL ACCESSORIES

   a. General: Provide complete metal panel assembly incorporating base, corner, and opening trims and miscellaneous flashings, in manufacturer's standard profiles. Provide required fasteners, closure strips, support plates, and sealants as indicated in manufacturer's written instructions.

   b. Flashing and Trim: Match material, thickness, and finish of metal panel face sheet. Color: Navy Blue, Architect/Owner to approve final color selection from manufacturer's color chip

   c. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by metal panel manufacturer.

      i. Exposed Fasteners: Long life fasteners with EPDM or neoprene gaskets, with heads matching color of metal panels by means of factory-applied coating.

   d. Joint Sealers: Manufacturer's standard or recommended liquid and preformed sealers and tapes, and as follows:

      i. Tape Sealers: Manufacturer's standard non-curing butyl tape, AAMA 809.2.

   e. **Steel Sheet Miscellaneous Framing Components**: ASTM C 645, with ASTM A 653/A 653M, G60 (Z180) hot-dip galvanized zinc coating.

6) FABRICATION

   a. General: Provide factory fabricated and finished metal panels and accessories meeting performance requirements, indicated profiles, and structural requirements.

   b. Panel Lengths: Form panels in continuous lengths for full length of detailed runs, except where otherwise indicated on approved shop drawings.

   c. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings. Form from materials matching metal panel substrate and finish.

7) FINISHES

   a. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

   b. **Modified Silicone-Polyester Two-Coat System**: 0.20 – 0.25 mil primer with 0.7 – 0.8 mil color coat[, meeting solar reflectance index requirements].

      i. Basis of Design: **MBCI, Signature 200**.

8) EXAMINATION

a. Examine metal panel system substrate and supports with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panel installation.

i. Inspect metal panel support substrate to determine if support components are installed as indicated on approved shop drawings. Confirm presence of acceptable supports at recommended spacing to match installation requirements of metal panels.
ii. Panel Support Tolerances: Confirm that panel supports are within tolerances acceptable to metal panel system manufacturer but not greater than the following:

1. 1/4 inch (6 mm) in 20 foot (6.1 m) in any direction.

b. Correct out-of-tolerance work and other deficient conditions prior to proceeding with metal panel system installation.

9) PREPARATION

a. **Miscellaneous Supports**: Install sub framing, girts, furring, and other miscellaneous panel support members according to ASTM C 754 and manufacturer's written instructions.

b. Flashings: Install flashings to cover exposed underlayment per Section 07 62 00 "Sheet Metal Flashing and Trim."

10) METAL PANEL INSTALLATION

a. Exposed Fastener Metal Wall Panels: Install weathertight metal panel system in accordance with manufacturer's written instructions, approved shop drawings, and project drawings. Install metal panels in orientation, sizes, and locations indicated, free of waves, warps, buckles, fastening stresses, and distortions. Anchor panels and other components securely in place. Provide for thermal and structural movement.

b. Panel Sealants: Install manufacturer's recommended tape sealant at panel sidelaps and endlaps.

c. Panel Fastening: Attach panels to supports using screws, fasteners, and sealants recommended by manufacturer and indicated on approved shop drawings.

i. Fasten metal panels to supports at each location indicated on approved shop drawings, with spacing and fasteners recommended by manufacturer.
ii. Provide weatherproof jacks for pipe and conduit penetrating metal panels of types recommended by manufacturer.
iii. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by manufacturer.

11) ACCESSORY INSTALLATION

a. General: Install metal panel trim, flashing, and accessories using recommended fasteners and joint sealers, with positive anchorage to building, and with weather tight mounting. Coordinate installation with flashings and other components.

i. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
ii. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
iii. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.

b. Joint Sealers: Install joint sealers where indicated and where required for weathertight performance of metal panel assemblies, in accordance with manufacturer's written instructions.
Prepare joints and apply sealants per requirements of Division 07 Section "Joint Sealants."

PART 3 - EXECUTION

ERECTION:

Framing: Erect structural framing true to line, level and plumb, rigid and secure. Level base plates to a true even plane with full bearing to supporting structures set with double-nutted anchor bolts. Use a non-shrinking grout to obtain uniform bearing and to maintain a level base line elevation. Moist cure grout for not less than 7 days after placement.

Purlins and Girts: Provide rake or gable purlins with tight fitting closure channels and fascias. Locate and space wall girts to suit door and window arrangements and heights. Secure purlins and girts to structural framing and hold rigidly to a straight line by sag rods.

Bracing: Provide diagonal rod or angle bracing in both roof and sidewalls as indicated.

Moment resisting frames may be used in lieu of sidewall rod bracing, to suit manufacturer's standards.

Where diaphragm strength of roof or wall covering is adequate to resist wind forces, rod or other forms of bracing will not be required.

Framed Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical or electrical work. Securely attach to building structural frame.

Building Anchorage: The building anchor bolts shall be designed to resist the maximum column reactions resulting from the specified combination of loadings. These designs and sizes shall be specified by the Building Manufacturer. Tie rods or hairpins shall be specified if required. Anchor bolts and anchorages will be supplied by the contractor and NOT the Building Manufacturer.

ROOFING AND SIDING:

General: Comply with Specification Section 07410 - Preformed Wall and Roof Panels.

Sheet Metal Accessories: Install gutters, downspouts, ventilators, louvers and other sheet metal accessories in accordance with manufacturer's recommendations for positive anchorage to building and weathertight mounting. Adjust operating mechanism for precise operation.

FIELD PAINTING:

Apply finish coating to factory-primed items as follows. Finish colors as indicated or, if not indicated, as selected by Architect from manufacturer's standards.

Cleaning and Touch-Up: Prior to application of finish coats, clean component surfaces of matter which could preclude paint bond.

Touch-up abrasions, marks, skips or other defects to shop-primed surfaces with same type material as shop primer.

Protection: Protect work of other trades. Correct painting related damages by cleaning, repairing or replacing, and refinishing, as directed by Architect.

Coordination: Provide finish coats which are compatible with prime paints used. Provide barrier coats over incompatible primers where required. Notify Architect in writing of anticipated problems using specified coatings with substrates primed by others.

Surface Preparation: Perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition.

Shop Primed Metal Surfaces: 2 coats lusterless alkyd enamel (FS TT-E-527).

Dissimilar Materials: Where aluminum surfaces come in contact with ferrous metal or other incompatible materials, keep aluminum surfaces from direct contact by applications to the other material as follows:

One coat in zinc chromate primer, FS TT-P-645, followed by two coats of aluminum, paint, SSPC- Paint 101.

In lieu of 2 coats of aluminum paint, apply one coat of high -build bituminous paint, SSPC-Paint 12, applied to a thickness of 1/16" over zinc chromate primer.

Backpaint the aluminum surface where it is impractical to paint the other surface.

END OF SECTION **133419**

PAGE LEFT BLANK INTENTIONALLY