

INVITATION FOR BID IFB # 15-0382DC

SUPERVISOR OF ELECTIONS (SOE) PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

Manatee County, a political subdivision of the State of Florida, (hereinafter "Owner") will receive sealed bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Florida or authorized to conduct business in the State of Florida.

NON-MANDATORY INFORMATION CONFERENCE

In order to ensure all prospective bidders have sufficient information and understanding of Owner's needs, an <u>Information Conference</u> will be held at: <u>9:30 AM on February 6, 2015</u> at the **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida**. Attendance is not mandatory, but is highly encouraged.

DEADLINE FOR CLARIFICATION REQUESTS: 5:00 PM on February 20, 2015

Reference Bid Article A.06

BID OPENING TIME AND DATE DUE: 3:00 PM on March 5, 2015

FOR INFORMATION CONTACT:

Deborah Carey-Reed, CPPB, Contract Specialist (941) 749-3074

deborah.carey-reed@mymanatee.org
Manatee County Financial Management Department
Purchasing Division

AUTHORIZED FOR RELEASE:

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IFB # 15-0616DC Warner's Bayou Boat Ramp (North Parking Lot)

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SECTION A INFORMATION TO BIDDERS

A.01 OPENING LOCATION

Sealed bids will be <u>publicly opened</u> at the <u>Manatee County Purchasing Division</u>, <u>1112 Manatee Avenue West</u>, <u>Suite 803</u>, <u>Bradenton</u>, <u>Florida 34205</u> in the presence of Owner officials at the time and date stated, or soon thereafter. All bidders or their representatives are invited to attend the sealed bid opening.

Any bids received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder to have their bid <u>delivered to the Manatee County Purchasing Division</u> for receipt on or before the stated time and date. Bidder shall be solely and strictly responsible for its timely delivery to the Purchasing Division. Bids delayed by mail, courier, or bids delayed for any other reason, shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the bidder's request and expense.

A.02 SEALED & MARKED

Bids shall be submitted in duplicate, one original (marked Original) and one copy (marked Copy) of your signed bid shall be submitted in one sealed package, clearly marked on the outside "Sealed Bid #15-0382DC SOE Phases 2 and 3 Interior Renovation Project" along with your company name.

For your convenience, a mailing label is provided with this Invitation for Bid (IFB) package. Or, you may address the package as follows:

Manatee County Pu	urchasing Division
1112 Manatee Aver	nue West, Suite 803
Bradenton, Florida	34205
Sealed Bid #	, Title

All blank spaces on the bid form must be filled in as noted with amounts extended and totaled and no changes shall be made in the wording of the forms or in the items thereupon. In the event a change is made in your submittal, the bidder shall write its initials by the change. Any bid may be rejected which contains any omissions, alterations, irregularities of any kind, or which shall in any manner fail to conform to the requirements of this IFB.

A bid made by an individual, either in his/her own or proper person or under a trade or firm name, shall be executed under the individual's signature. If made by a partnership, the bid shall be executed by two or more of the general partners. If made by a corporation, the bid shall be executed by its President or other legally authorized corporate officer or agent.

A.03 SECURING BID DOCUMENTS

IFB's and related documents are available on http://www.mymanatee.org/purchasing for download in a portable document format (.PDF) file by clicking on "Bids and Proposals" from the Purchasing Division's web page. You may view and print these files using Adobe Reader software. If necessary, you may download a free copy of Adobe Reader from the link provided on the "Bids and Proposals" page.

Additionally, Manatee County collaborates with the Manatee Chamber of Commerce by announcing solicitation opportunities to the Chamber which are then passed to its members.

Manatee County may also use DemandStar to distribute bids. On the DemandStar website, http://www.DemandStar.com, click on the tab titled "My DemandStar" for more information regarding this service. Participation in the DemandStar system is not a requirement for doing business with Manatee County.

Complete copies of the IFB and all related documents are available for public inspection at the Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205, or by calling (941) 749-3014. Appointments are encouraged. Documents are available between the hours of 9:00 AM and 4:00 PM Monday through Friday, with the exception of holidays. A complete set of the IFB documents must be used in preparing bids. Owner assumes no responsibility for errors and misinterpretations resulting from the use of incomplete sets of bid documents.

A.04 EXAMINATION OF BID DOCUMENTS AND SITE(S)

It is the responsibility of each bidder before submitting a bid, to (a) examine the IFB documents thoroughly; (b) visit the Project Site(s) to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate bidder's observations with the IFB documents; and (e) notify Owner of all conflicts, errors, or discrepancies in the IFB documents.

Each bidder may, at bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the Project Site(s) or otherwise which may affect cost, progress, performance or furnishing of the Work and which bidder deems necessary to determine his bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the IFB documents. Owner will provide each bidder access to the site(s) to conduct such explorations and tests.

Bidder shall fill all holes, clean up and restore the Project Site(s) to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands

designated for use by successful bidder in performing the Work are identified in the IFB documents.

All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by successful bidder. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the IFB documents.

Inspection of the Project Site(s) is **a requirement** to be considered for award of this bid. Prior to submitting a bid, each bidder shall examine the Project Site(s) and all conditions thereon fully familiarizing themselves with the full scope of the Work. Failure to become familiar with Project Site conditions will in no way relieve the successful bidder from the necessity of furnishing any materials or performing any Work that is required to complete the Project in accordance with the Project Plans and Specifications. Bidder shall acknowledge inspection of the Project Site(s) on his/her signed, submitted Bid Form.

A.05 MODIFICATION OF BID DOCUMENTS

If a bidder wishes to recommend changes to the IFB documents, the bidder shall furnish, in writing, data and information necessary to aid Owner in evaluating the request to modify the IFB documents. Owner is not obligated to make any changes to the IFB documents. Unless an addendum is issued, the IFB documents shall remain unaltered. Bidders must fully comply with the IFB documents in their entirety.

A.06 CLARIFICATION & ADDENDA

Each bidder shall examine all IFB documents and shall judge all matters relating to their adequacy and accuracy. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to this IFB shall be made through the Manatee County Purchasing Division. Owner shall not be responsible for oral interpretations given by any Owner employee, representative, or others.

<u>5:00 PM on January 30 2015</u> shall be the deadline to submit to the Purchasing Division, in writing, all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to this IFB.

This deadline has been established to maintain fair treatment of all potential bidders, while maintaining progression of the Work.

If any addenda are issued to this IFB, Owner will post the documents on the Purchasing Division's web page at http://www.mymanatee.org/purchasing, and then by clicking on "Bids and Proposals". If the original solicitation was broadcast via DemandStar, the addenda will also be broadcast on the DemandStar distribution system to "Planholders" on this web service.

The issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

It shall be the <u>responsibility of each bidder, prior to submitting a bid</u>, to contact the Purchasing Division (see contact information on the cover page) to <u>determine if any addenda were issued</u> and to make such addenda a part of their bid.

A.07 LOBBYING

After the issuance of any IFB, prospective bidders or their agents, representatives or persons acting at the request of such bidder shall not contact, communicate with or discuss any matter relating to the IFB with any officer, agent or employee of Manatee County other than the Purchasing Official or the contact identified in this IFB, pursuant to the Manatee County Code of Laws. This prohibition includes copying such persons on all written communication, including email correspondence. This requirement begins with the issuance of an IFB and ends upon execution of the final Agreement or when the IFB has been cancelled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Code of Laws.

A.08 UNBALANCED BIDDING PROHIBITED

Owner recognizes that large and/or complex projects will often result in a variety of methods, sources, and prices. However, where in the opinion of Owner such variation does not appear to be justified, given bid requirements and industry and market conditions, the bid will be presumed to be unbalanced. Examples of unbalanced bids will include:

- a. Bids showing omissions, alterations of form, additions not specified, or required conditional or unauthorized alternate bids.
- b. Bids quoting prices that substantially deviate, either higher or lower, from those included in the bids of competitive bidders for the same line item unit costs.
- c. Bids where the unit costs offered are in excess of or below reasonable cost analysis values.

In the event Owner determines that a bid is presumed unbalanced, it will request the opportunity to and reserves the right to, review all source quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop its bid. Owner reserves the right to reject as nonresponsive any presumptive unbalanced bids where the bidder is unable to demonstrate the validity and/or necessity of the unbalanced unit costs.

A.09 FRONT LOADING OF BID PRICING PROHIBITED

Prices offered for performance and/or acquisition activities which occur early in the Project Schedule, such as mobilization; clearing and grubbing; or maintenance of traffic; that are substantially higher than pricing of competitive bidders within the same portion of the Project Schedule, will be presumed to be front loaded. Front loaded bids

could reasonably appear to be an attempt to obtain unjustified early payments creating a risk of insufficient incentive for the bidder to complete the Work or otherwise creating an appearance of an undercapitalized bidder.

In the event Owner determines that a bid is presumed to be front loaded, it will request the opportunity to, and reserves the right to, review all source quotes, bids, price lists, letters of intent, etc., which the bidder obtained and upon which the bidder relied upon to develop the pricing or acquisition timing for these bid items. Owner reserves the right to reject as nonresponsive any presumptive front loaded bids where the bidder is unable to demonstrate the validity and/or necessity of the front loaded costs.

A.10 WITHDRAWAL OF BIDS

Bidders may withdraw bids as follows:

- a. Mistakes discovered before the public bid opening may be withdrawn by written notice from the bidder submitting the bid. This request must be received in the Purchasing Division prior to the time set for delivery and opening of the bids. A copy of the request shall be retained and the unopened bid returned to the bidder; or
- b. After the bids are opened or a selection has been determined, but before an Agreement is signed, a bidder alleging a material mistake of fact may be permitted to withdraw their bid if:
 - 1. The mistake is clearly evident in the solicitation document; or
 - Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made. Request to withdraw a bid must be in writing and approved by the Purchasing Official.

A.11 IRREVOCABLE OFFER

Any bid may be withdrawn up until the time and date set for opening of the bid. Any bid not so withdrawn shall, upon opening, constitute an <u>irrevocable offer for a period of ninety (90) days</u> to sell to Manatee County the goods or services set forth in the attached IFB until one or more of the bids have been duly accepted by Owner.

A.12 BID EXPENSES

All expenses for making bids to Owner are to be borne by the bidder.

A.13 RESERVED RIGHTS

Owner reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission. Also, Owner reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduced requirements of Owner. Any sole response received by the first submission date may or may not be rejected by Owner depending on available

competition and current needs of Owner. For all items combined, the bid of the lowest, responsive, responsible bidder will be accepted, unless all bids are rejected.

The <u>lowest</u>, responsible bidder shall mean that bidder who makes the lowest bid to sell goods and/or services of a quality which meets or exceeds the quality of goods and/or services set forth in the IFB documents or otherwise required by Owner.

To be <u>responsive</u>, a bidder shall submit a bid which conforms in all material respects to the requirements set forth in the IFB.

To be a <u>responsible</u> bidder, the bidder shall have the capability in all respects to perform fully the bid requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance.

Also, Owner reserves the right to make such investigation as it deems necessary to determine the ability of any bidder to furnish the service requested. Information Owner deems necessary to make this determination shall be provided by the bidder. Such information may include, but shall not be limited to current financial statements, verification of availability of equipment and personnel, and past performance records.

A.14 APPLICABLE LAWS

Bidder must be authorized to transact business in the State of Florida. All applicable laws and regulations of the State of Florida and ordinances and regulations of Manatee County will apply to any resulting Agreement. Any involvement with the Manatee County Purchasing Division shall be in accordance with the Manatee County Purchasing Ordinance as amended.

A.15 COLLUSION

By submitting a bid to this IFB, bidder certifies that it has not divulged, discussed or compared its bid with any other bidder, and <u>has not colluded</u> with any other bidder or parties to this bid whatsoever. Also, bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization, that in connection with this bid:

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other bidder or with any competitor;
- b. any prices and/or cost data quoted for this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder, prior to the scheduled opening, directly or indirectly to any other bidder or to any competitor;
- c. no attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition;

- d. the only person or persons interested in this bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this bid or in the resulting Agreement to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure the resulting Agreement upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee except bona fide employees or established commercial agencies maintained by bidder for purpose of doing business.

A.16 CODE OF ETHICS

With respect to this bid, if any bidder violates, directly or indirectly, the ethics provisions of the Manatee County Purchasing Ordinance and/or Florida criminal or civil laws related to public procurement, including but not limited to Chapter 112, Part III, Code of Ethics for Public Officers and Employees, Florida Statutes, such bidder will be disqualified from eligibility to perform the Work described in this IFB, and may also be disqualified from furnishing future goods or services to, and from submitting any future bids to supply goods or services to, Manatee County.

By submitting a bid, the bidder represents to Owner that all statements made and materials submitted are truthful, with no relevant facts withheld. If a bidder is determined to have been untruthful in their bid or any related presentation, such bidder will be disqualified from eligibility to perform the Work described in this IFB, and may also be disqualified from furnishing future goods or services to, and from submitting any future bids to supply goods or services to, Manatee County.

A.17 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime, as that term is defined in Section 287.133, Florida Statutes, may not submit a bid to provide any goods or services to a public entity; may not submit a bid with a public entity for the construction or repair of a public building or public work; may not submit bids on leases of real property to a public entity; may not be awarded or perform Work as a contractor, supplier, Subcontractor, or consultant under an agreement with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of thirty-six (36) months following the date of being placed on the convicted list.

In addition, the Manatee County Code of Laws prohibits the award of any bid to any person or entity who/which has, within the past five (5) years, been convicted of, or admitted to in court or sworn to under oath, a public entity crime or of any environmental law that, in the reasonable opinion of the Purchasing Official, establishes reasonable grounds to believe the person or business entity will not conduct business in a responsible matter.

To ensure compliance with the foregoing, the Code requires all persons or entities desiring to do business with Owner to execute and file with the Purchasing Official an affidavit, executed under the pain and penalties of perjury, confirming that person, entity and any person(s) affiliated with the entity, does not have such a record and is therefore eligible to seek and be awarded business with Owner. In the case of a business entity other than a partnership or a corporation, such affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, such affidavit shall be executed by the general partner(s). A Public Contracting and Environmental Crimes Certification form is attached herein for this purpose.

A.18 BID FORMS

Bids must be submitted on the provided forms, although additional pages may be attached. Bidders must fully complete all pages of the Bid Forms. Bid Forms must be executed by an authorized signatory who has the legal authority to make the bid and bind the company. Bidders must fully comply with all requirements of this IFB in its entirety. Failure to comply shall result in bidder being deemed nonresponsive.

A.19 AGREEMENT FORMS

The Agreement resulting from the Acceptance of a bid shall be in the form of the Agreement stated in this IFB, which is attached herein.

A written notice confirming award or recommendation thereof will be forwarded to the successful bidder accompanied by the required number of unsigned counterparts of the Agreement. Within ten (10) days thereafter, successful bidder shall sign and deliver the required number of counterparts of the Agreement with any other required documents to Owner. (Note: Agreement must be approved in accordance with Chapter 2-26 of the Manatee County Code of Laws and the Administrative Standards and Procedures Manual approved by the County Administrator).

A.20 LEGAL NAME

Bids shall clearly indicate the <u>legal name</u>, <u>address</u> and <u>telephone number</u> of the bidder on the Bid Form. Bid Forms shall be <u>signed</u> above the <u>typed or printed name</u> and <u>title</u> of the signer. The signer must have the authority to bind the bidder to the submitted bid.

When bidder is a partnership, the Bid Form shall be signed in the name of the firm and by all partners required under the terms of the partnership agreement. When a corporation is a bidder, the authorized corporate officers shall sign.

Bidders who are corporations or limited partnerships shall provide a certified copy of their permit to transact business in the State of Florida, preferably along with the Bid Form, or within forty-eight (48) hours after request by Owner.

When submitting a bid as a joint venture, it must have filed paper documents with the Division of Profession's Construction Industry Licensing Board prior to submitting a bid.

A.21 DISCOUNTS

Any and all discounts must be incorporated in the prices contained in the bid and not shown separately. The prices indicated on the Bid Form shall be the prices used in determining award.

A.22 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Cert. No. 59-78-0089K; Florida Sales Tax Exempt Cert. No. 85-8012622206C-6); therefore, the bidder is prohibited from delineating a separate line item in his bid for any sales or service taxes. Nothing herein shall affect the bidder's normal tax liability.

A.23 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the IFB documents, all equipment, materials and articles provided shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the IFB documents, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.24 AUTHORIZED PRODUCT REPRESENTATION

The bidder, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in Owner's sole discretion, be deemed a material breach of the resulting Agreement, and shall constitute grounds for Owner's immediate termination of the resulting Agreement.

A.25 ROYALTIES AND PATENTS

The successful bidder shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Successful bidder shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save Owner harmless from loss on account thereof, including costs and attorney's fees.

A.26 AMERICANS WITH DISABILITIES ACT

Owner does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of Owner's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring **reasonable accommodation** for an Information Conference or Bid Opening should contact the person named on the cover page of this IFB document at least twenty-four (24) hours in advance of either activity.

A.27 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

In accordance with the provisions of Title VI of the Civil Rights Act of 1964 and Title 15, Part 8 of the Code of Federal Regulations, Owner hereby notifies all bidders that they will affirmatively ensure minority business enterprises will be afforded full opportunity to participate in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for bid award.

A.28 MBE/DBE

The State of Florida Office of Supplier Diversity provides the certification process and the database for identifying certified MBE/DBE firms. This service may be directly accessed at: http://www.osd.dms.state.fl.us/iframe.htm. If you have any questions regarding this State service, please contact their office at (850) 487-0915.

A.29 MATHEMATICAL ERRORS

In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. In the event the dollar amount for contract contingency is omitted, it will be added to the total price of the bid. All bids shall be reviewed mathematically and corrected, if necessary, using these standards, prior to additional evaluation.

A.30 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of Subcontractors, suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) may be requested by Owner for each bid item from any of the bidders; and the bidder shall respond within five (5) days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar Work and other evidence of qualification for each such Subcontractor, supplier, persons or organization if requested by Owner. If Owner, after due investigation, has reasonable objection to any proposed Subcontractor, supplier, other person or organization, Owner may, before the notice of intent to award is given, request the successful bidder to submit an acceptable substitute without an increase in Contract Sum or Contract Time.

If successful bidder declines to make any such substitution, Owner may award the resulting Agreement to the next lowest qualified bidder that proposes to use acceptable Subcontractors, suppliers, and other persons who Owner does not make written objection to. Successful bidder shall not be required to employ any Subcontractor, supplier, other person or organization who successful bidder has reasonable objection to.

Subcontractors shall be bound by the terms and conditions of the resulting Agreement insofar as it applies to their Work, but this shall not relieve the successful bidder from the full responsibility to Owner for the proper completion of all Work to be executed under the resulting Agreement.

A.31 DISCLOSURE

Upon receipt, all inquiries and responses to inquiries related to this IFB become "Public Records", and shall be subject to public disclosure consistent with Florida Statues, Chapter 119.

Bids become subject to disclosure thirty (30) days after the opening or if a notice of intent to award decision is made earlier than this time as provided by Florida Statutes § 119.071(1)(b). No announcement or review of the bid shall be conducted at the public bid opening.

Based on the above, Owner will receive bids at the time and date stated and will make public at the opening the names of the business entities of all that submitted a bid and any amount presented as a total offer without any verification of the mathematics or the completeness of the bid.

If Owner rejects all bids and concurrently notices its intent to reissue the solicitation, the rejected bids are exempt from public disclosure until such time as Owner provides notice of an intended decision concerning the reissued solicitation or until Owner withdraws the reissued solicitation. A bid is not exempt for longer than twelve (12) months after the initial notice rejecting all bids.

Pursuant to Section 119.0701, Florida Statutes, in any Agreement entered into by Owner wherein the successful bidder is acting on behalf of Owner, successful bidder must:

- a. Keep and maintain public records that ordinarily and necessarily would be required by Owner in order to perform the service.
- b. Provide the public with access to public records on the same terms and conditions that Owner would provide and at a cost that does not exceed the cost provided in Florida Statutes, Chapter 119, or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- d. Meet all requirements for retaining public records and transfer, at no cost, to Owner all public records in possession of successful bidder upon termination of the awarded Agreement and/or PO and destroy any duplicate public records that are exempt or confidential from public records disclosure requirements. All records stored electronically must be provided to Owner in a format that is compatible with Owner's information technology systems.

A.32 LOCAL PREFERENCE

Local business is defined as a business legally authorized to engage in the sale of the goods and/or services to be procured, and which certifies within its bid that for at least six (6) months prior to the announcement of the solicitation of bids it has maintained a

physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employee at that location.

Local preference shall not apply to the following categories of Agreements:

- 1. Purchases or Agreements which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference.
- 2. Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the County Commission or County Administrator, or where such suspension is, in the opinion of the County Attorney, required by law.

To qualify for local preference under this section, a local business must certify to Owner by completing an "Affidavit as to Local Business Form", which is available for download at www.mymanatee.org/vendor. Click on "Affidavit for Local Business" to access and print the form. Complete, notarize, and <a href="mailto:m

It is the responsibility of the bidder to ensure accuracy of the Affidavit as to Local Business and notify Owner of any changes affecting same.

A.33 VENDOR REGISTRATION

Registering your business with Manatee County will enhance our opportunities to identify sources for goods and services, plus identify local businesses. This information is used for soliciting quotations up to \$250,000.00 and for competitive solicitations of larger purchases.

Our staff can assist you with your registration as needed. Our office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday on regular business days. Please call (941) 749-3014 if you wish to have a Purchasing staff member assist you.

Quick steps to registration: www.mymanatee.org/purchasing

A link to Vendor Registration is listed on the Purchasing Division's web page under "Register as a Vendor". Click on "Vendor Registration Form" for on-line input.

Registration is not mandatory; however, by taking the time to register, you are helping Owner to provide timely notification of quotation, bid and proposal opportunities to your business.

A.34 BE GREEN

All bidders are encouraged to use as many **environmentally preferable** "green" products, materials, supplies, etc. as possible in order to promote a safe and healthy environment. **Environmentally preferable are products or services that have a reduced adverse effect on the environment**. Where all other evaluative factors, including local preference policies, are otherwise equal, such policies and practices will be a determinative factor in the award decision.

Provide detail of your organization's initiative and its ability to meet the goal of environmental sustainability.

A.35 ePAYABLES

Manatee County and Clerk of the Circuit Court have partnered to offer the ePayables program, which allows payments to be made to vendors via credit cards. The Clerk will issue a unique credit card number to each vendor; the card has a zero balance until payments have been authorized.

After goods are delivered or services rendered, vendors submit invoices to the remit to address on the purchase order according to the current process. When payments are authorized, an email notification is sent to the vendor. The email notification includes the invoice number(s), invoice date(s), and amount of payment. There is no cost for vendors to participate in this program; however, there may be a charge by the company that processes your credit card transactions.

If you are interested in participating in this program, please complete the ePayables Application attached herein and return the completed form via email to Ms. Lori Bryan, Supervisor at lori.bryan@manateeclerk.com.

NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS: SCOPE OF WORK, BID SUMMARY, CONSTRUCTION AGREEMENT FOR STIPULATED SUM, AND GENERAL CONDITIONS OF THE CONSTRUCTION AGREEMENT, WHICH VARY FROM THE INFORMATION TO BIDDERS, SHALL HAVE PRECEDENCE.

END OF SECTION A

SECTION B SCOPE OF WORK

B.01 SCOPE OF WORK

The Work included in this bid is generally defined as the renovation of an approximately 21,000 square feet facility at (Supervisor of Elections) 600 301 Boulevard West, Suite 108, Bradenton.

The Successful Bidder shall perform the Work complete, in place, and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by County.

The Successful Bidder shall furnish all shop drawings, working drawings, labor, materials, equipment, tools, services, and incidentals necessary to complete all Work required by these Bid Documents.

B.02 COMPLETION OF WORK

The Work will be completed and ready for final inspection within the specified calendar days from the date the Contract Time commences to run. Two bids shall be considered, **Bid "A"** based on 120 calendar days and **Bid "B"** based on 160 calendar days. Owner has the sole authority to select the bid based on the completion time which is in the best interest of Owner. Only one award shall be made.

B.03 LIQUIDATED DAMAGES

If the successful bidder fails to achieve Substantial Completion of the Work within the Contract Time and as otherwise required by the Contract Documents, the Owner shall be entitled to retain or recover from the successful bidder, as liquidated damages and not as a penalty, the sum of \$1,742 per calendar day, commencing upon the first day following expiration of the Contract Time and continuing until the actual date of Substantial Completion. Such liquidated damages are hereby agreed to be a reasonable estimate of damages the Owner will incur as a result of delayed completion of the Work. The Owner may deduct liquidated damages as described in this paragraph from any unpaid amounts then or thereafter due the successful bidder under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due the successful bidder shall be payable to the Owner at the demand of the Owner, together with interest from the date of the demand at the maximum allowable rate.

B.04 CONTRACT CONTINGENCY WORK

Contract contingency is a monetary allowance used solely at Owner's discretion to handle unexpected conditions as required to satisfactorily complete the Work in accordance with the IFB documents. A Field Directive must be issued by an authorized Owner representative to authorize use of contract contingency funds.

The percentage for contract contingency is listed on the Bid Form. Bidder shall enter the dollar amount for contract contingency based on the percentage of the total base bid. The total contract award will include contract contingency.

Appropriate uses of contract contingency include increases to existing bid item quantities that do not change the initial scope of Work, which may be directed by staff; modification items not originally bid which were unforeseen yet necessary during the Work to provide a safe, complete Project and that do not change the initial scope of Work; and unanticipated conflicts and/or design changes required during construction which are necessary to provide a safe, complete Project and that do not change the initial scope of Work.

Inappropriate uses of contract contingency include anything that changes the initial scope of Work, including the Contract Sum and Contract Time, and adding bid items not previously contemplated that change the initial scope of Work.

END OF SECTION B

SECTION C BID SUMMARY

C.01 MINIMUM QUALIFICATIONS OF BIDDERS

No person who is not certified or registered as a <u>Certified General Contractor</u> pursuant to Chapter 489, Florida Statutes, on the day the bid is submitted, and who has continuously held that certification or registration for a period of at least three (3) consecutive years immediately prior to the day the bid is submitted, may be qualified to bid on this Work. In the event that a bidder is a business organization, including a partnership, corporation, business trust or other legal entity as set forth in Section 489.119(2), Florida Statutes, then the bidder shall only be qualified to bid on this Work if: 1) the bidder (the business organization) is on the day the bid is submitted, and for at least three (3) consecutive years immediately prior to the day the bid is submitted has been, in continuous existence, properly licensed and registered as required by Florida law; and 2) the bidder, on the day the bid is submitted, has a certified or registered Qualifying Agent, as required by Section 489.119, Florida Statutes, and that Qualifying Agent has been the same Qualifying Agent of the bidder for a period of at least three (3) consecutive years immediately prior to the day the bid is submitted.

C.02 BASIS OF AWARD

Award shall be to the lowest, responsive, responsible bidder meeting specifications and having the lowest total offer for **Bid** "A", or the lowest total offer for **Bid** "B", for the requirements listed on the Bid Form for the Work as set forth in this IFB. Bid prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the IFB documents to Owner's satisfaction within the prescribed time.

Two schedules for completion of Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "total offer". Owner has the sole authority to select the bid based on the completion time which is in the best interest of Owner. Only one award shall be made.

NOTE: <u>Inspection of the site is a pre-requisite to be considered for award of this bid</u>.

In evaluating bids, Owner shall consider the qualifications of the bidders; and if required, may also consider the qualifications of the Subcontractors, suppliers, and other persons and organizations proposed. Owner may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

The Owner shall also consider if the contractor has failed to meet a project completion date within the past five (5) years.

Whenever two or more bids are equal with respect to price, the bid received from a local business shall be given preference in award.

Whenever two or more bids are equal with respect to price, and all other evaluative factors are otherwise equal, including local preference policies, if the company provides documented environmentally preferable "green" products, materials, or supplies, they shall be given preference in award.

Whenever two or more bids which are equal with respect to price are received, and neither of these bids are from a local business, and neither of these bids provides documented "green" products, the award shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the Purchasing Division and open to the public.

END OF SECTION C

BID FORM

(Submit in triplicate)

For: IFB #15-0382DC SOE Phases 2 and 3 Interior Renovation Project Total Offer (Bid "A"): Based on a completion time of 120 calendar days Total Offer (Bid "B"): Based on a completion time of 170 calendar days We, the undersigned, hereby declare that we have carefully reviewed the IFB Documents in their entirety and with full knowledge and understanding of the aforementioned herewith submit this bid, completely meeting each and every specification, term, and condition contained therein. Two schedules for completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "total offer". County has the sole authority to select the bid based on the completion time which is in the best interest of County. Only one award shall be made. As bidder, we understand that the IFB documents, in its entirety, including but not limited to, all specifications, terms, and conditions shall be made a part of any resulting Agreement between Manatee County and the successful bidder. Failure to comply shall result in Agreement default, whereupon, the defaulting successful bidder shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by County, and agrees to forfeit his/her bid bond. Communications concerning this bid shall be addressed as follows: (Complete all fields) Bidder's Name: Email Address: I, ____ on [date(s)] ____ attest that I have visited the project site(s) to familiarize myself with the full scope of work required for the bid. Acknowledge Addendum No.____ Dated: _____ Authorized Signature(s): Name and Title of Above Signer(s):

Date: _____

MAILING LABEL

Cut along the outside border and affix this label to your sealed bid envelope to identify it as a "Sealed Bid". Be sure to include the name of the company submitting the bid and the bid due date and time where requested.

MAILING LABEL TO AFFIX TO OUTSIDE OF SEALED BID PACKAGE:

SEALED BID - DO NOT OPEN	
BIDDER:	
SEALED BID NO: IFB #	
BID TITLE: IFB TITLE	
DUE DATE/TIME:	. @

BID "A" 120 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

ITENA	DECODIDATION	FOT OTV	1.1/5.4	UNIT	EXTENDED
ITEM Divisio	DESCRIPTION n 1 - General Requirements	EST QTY	U/M	PRICE	PRICE
	·				
1.01	Mobilization	1	LS		\$
1.02	Demolition	1	LS		\$
	1 - Totals				\$
Divisio	n 2 - Site				
2.01	Existing Asphalt Repair	1	LS		\$
Division	2 - Totals				\$
Divisio	n 3 - Concrete				
3.01	Exterior Openings - Windows	4	EA	\$	\$
3.02	Exterior Openings - Man Doors	1	EA	\$	\$
3.03	Exterior Openings - Truck Doors	3	EA	\$	\$
3.04	Existing Slab Repair	1	LS		\$
3.04	Interior Masonry Openings	1	LS		\$
Division	3 Totals				\$
Divisio	n 5 - Site				
5.01	Interior Metal Framing	1	LS		\$
5.02	Miscellaneous Structural Steel	1	LS		\$
	2 - Totals				\$
Divisio	n 6 - Woods and Plastics				
6.01	Reception Desk	1	LS		\$
6.02	Cabinetry - Base Cabinets	153	LF	\$	\$
6.03	Cabinetry - Upper Cabinets	140	LF	\$	\$
6.04	Countertops - 24" P Lam	176	LF	\$	\$
Division 6 Totals				\$	

BIDDER:	
AUTHORIZED BY:	

BID "A" 120 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

Division 8 - Doors &	Windows			
		3	EA	\$ \$
8.01 Overhead Coi	•			
	Frames, and Hardware	23	leaf	\$ \$
	rames, and Hardware	6	leaf	\$ \$
8.04 Interior Glazin		64	SF	\$ \$
8.05 Exterior Store	front	4	EA	\$ \$
8.06 Access Contro	ol	1	LS	\$
Division 8 Totals				\$
Division 9 - Finishes				
9.01 Gypsum Asse	mblies	1	LS	\$
9.02 Drywall and F	raming - Patch and Texture	1	LS	\$
9.03 Carpet		956	YD	\$ \$
9.04 Porcelain Floo	or Tile	1,178	SF	\$ \$
9.05 Porcelain Tile	Base	838	LF	\$ \$
9.06 Vinyl Floor Til	e	995	SF	\$ \$
9.07 Vinyl Base		1,585	LF	\$ \$
9.08 Sealed Concr	ete	4,768	SF	\$ \$
9.09 24" Wide Soff	it	15	LF	\$ \$
9.10 12" Wide Gyp	. Bd. Soffit	68	LF	\$ \$
9.11 Gyp. Bd. Hea	der	33	LF	\$ \$
9.12 Acoustical Ce	iling and Grid	8,918	SF	\$ \$
9.13 Painted and T	extured Gyp. Bd. Ceilings	918	SF	\$ \$
9.14 Open Structur	е	5,402	SF	\$ \$
9.15 Interior Painti	ngs & Coatings	1	LS	\$
9.16 Porcelain Wa	l Tile	2,479	SF	\$ \$
9.17 Exterior Paint	ng	1	LS	\$
9.18 Exterior Finish	Patch and Repair	1	LS	\$
9.19 Stucco over n	ew exterior structure	1	LS	\$
9.20 Exterior Foam Trim 58 LF		LF	\$ \$	
Division 9 Totals				\$

BIDDER:	
AUTHORIZED BY: _	

BID "A" 120 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

IFB #15-0382DC SOE PHASES 2 AND	3 IN I ERIC	K KENU	ATION PRO	JJECT
Division 10 - Specialties				
10.01 Fire Extinguisher in Cabinet	6	EA	\$	\$
10.02 Toilet Partitions	1	LS		\$
10.03 Toilet Accessories	1	LS		\$
10.04 ADA Signage (Code Required)	1	LS		\$
10.05 Specialty Signage	1	LS		\$
Division 10 Totals	\$			
Division 15 - Mechanical				
15.01 Fire Sprinkler System Renovation	1	LS		\$
15.02 HVAC - Ducting	1	LS		\$
15.03 Plumbing	1	LS		\$
Division 15 Totals				\$
Division 16 - Electrical				
16.01 Electrical - Wiring	1	LS		\$
16.02 Electrical - Lighting	1	LS		\$
16.03 Electrical - Switchgear	1	LS		\$
Electrical - Low Voltage (wiring, pathways, 16.05 trim)	1	LS		\$
16.06 Electrical - Fire Alarm	1	LS		\$
16.07 Electrical - Data	1	LS		\$
Division 16 Totals				\$
TOTAL CONSTRUCTION COST (Above Divisions Totals) Contract Contingency Work (used ONLY with County Approval	\$			
TOTAL BID "A" (120 Calendar Days	\$			
Alternate #1 - Add/Deduct Truck De	\$			

AUTHORIZED BY:	BIDDER:	
	AUTHORIZED BY:	

BID "B" 170 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

ITEM	DESCRIPTION	EST QTY	U/M	UNIT PRICE	EXTENDED PRICE
Division	n 1 - General Requirements				
1.01	Mobilization	1	LS		\$
1.02	Demolition	1	LS		\$
	1 - Totals				\$
Division	n 2 - Site				
2.01	Existing Asphalt Repair	1	LS		\$
Division	2 - Totals				\$
Division	n 3 - Concrete				
3.01	Exterior Openings - Windows	4	EA	\$	\$
3.02	Exterior Openings - Man Doors	1	EA	\$	\$
3.03	Exterior Openings - Truck Doors	3	EA	\$	\$
3.04	Existing Slab Repair	1	LS		\$
3.04	Interior Masonry Openings	1	LS		\$
Division	3 Totals				\$
Division	n 5 - Site				
5.01	Interior Metal Framing	1	LS		\$
5.02	Miscellaneous Structural Steel	1	LS		\$
	2 - Totals				\$
Division	n 6 - Woods and Plastics				
6.01	Reception Desk	1	LS		\$
6.02	Cabinetry - Base Cabinets	153	LF	\$	\$
6.03	Cabinetry - Upper Cabinets	140	LF	\$	\$
6.04	Countertops - 24" P Lam	176	LF	\$	\$
Division	6 Totals				\$

BIDDER:	
AUTHORIZED BY:	

BID "B" 170 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

Division 8 - Doors &	Windows			
		3	EA	\$ \$
8.01 Overhead Coi	•			
	Frames, and Hardware	23	leaf	\$ \$
	rames, and Hardware	6	leaf	\$ \$
8.04 Interior Glazin		64	SF	\$ \$
8.05 Exterior Store	front	4	EA	\$ \$
8.06 Access Contro	ol	1	LS	\$
Division 8 Totals				\$
Division 9 - Finishes				
9.01 Gypsum Asse	mblies	1	LS	\$
9.02 Drywall and F	raming - Patch and Texture	1	LS	\$
9.03 Carpet		956	YD	\$ \$
9.04 Porcelain Floo	or Tile	1,178	SF	\$ \$
9.05 Porcelain Tile	Base	838	LF	\$ \$
9.06 Vinyl Floor Til	e	995	SF	\$ \$
9.07 Vinyl Base		1,585	LF	\$ \$
9.08 Sealed Concr	ete	4,768	SF	\$ \$
9.09 24" Wide Soff	it	15	LF	\$ \$
9.10 12" Wide Gyp	. Bd. Soffit	68	LF	\$ \$
9.11 Gyp. Bd. Hea	der	33	LF	\$ \$
9.12 Acoustical Ce	iling and Grid	8,918	SF	\$ \$
9.13 Painted and T	extured Gyp. Bd. Ceilings	918	SF	\$ \$
9.14 Open Structur	е	5,402	SF	\$ \$
9.15 Interior Painti	ngs & Coatings	1	LS	\$
9.16 Porcelain Wa	l Tile	2,479	SF	\$ \$
9.17 Exterior Paint	ng	1	LS	\$
9.18 Exterior Finish	Patch and Repair	1	LS	\$
9.19 Stucco over n	ew exterior structure	1	LS	\$
9.20 Exterior Foam Trim 58 LF		LF	\$ \$	
Division 9 Totals				\$

BIDDER:	
AUTHORIZED BY:	

BID "B" 170 CALENDAR DAYS COMPLETION IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

6 1 1 1 1 1 1	EA LS LS LS LS LS LS		\$ \$ \$ \$ \$ \$
1 1 1 1 1	LS LS LS LS LS LS	\$	\$ \$ \$ \$ \$ \$
1 1 1 1 1	LS LS LS LS LS		\$ \$ \$ \$ \$
1 1 1 1	LS LS LS LS		\$ \$ \$ \$ \$
1 1 1 1	LS LS LS		\$ \$ \$ \$ \$
1 1 1	LS LS LS		\$ \$ \$ \$
1 1	LS LS		\$ \$ \$ \$
1 1	LS LS		\$
1 1	LS LS		\$
	LS		\$
1	1.0		\$
1	1.0	_	
1	1.0		
	LS		\$
1	LS		\$
			\$
			\$
	10% o	f Base Bid	\$
			\$
	onv		\$
			10% of Base Bid

BIDDER:	
AUTHORIZED BY: _	

ATTACHMENT A **BIDDER'S QUESTIONNAIRE**

(Submit in Duplicate)

The bidder warrants the truth and accuracy of all statements and answers herein contained. (Attach additional pages if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID

1.	Contact Information:
	FEIN#:
	License #: License Issued to: Date License Issued (MM/DD/YR): Company Name: Physical Address: City: State of Incorporation: Phone Number: () Email address:
2.	Bidding as: an individual; a partnership; a corporation; a joint venture
3.	If a partnership, list names and addresses of partners; if a corporation, list names of officers, directors, shareholders, and state of incorporation; if joint venture, list names and address of ventures' and the same if any venture are a corporation for each such corporation, partnership, or joint venture:
4.	Bidder is authorized to do business in the State of Florida: Yes No For how many years?
5.	Your organization has been in business (under this firm's name) as a
	Is this firm in bankruptcy?
6.	Attach a list of projects where this specific type of Work was performed.
	BIDDER:

7.	Is this firm currently contemplating or in litigation? Provide summary details.
8.	Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address and phone number) and why.
9.	Have you ever failed to complete Work awarded to you? Or failed to complete projects within contract time? If so, state when, where (contact name, address, phone number) and why.
10.	Have you ever been debarred or prohibited from providing a bid to a governmental entity? If yes, name the entity and describe the circumstances.
11.	Will you subcontract any part of this Work? If so, describe which portion(s) and to whom.
	BIDDER:

If any, list MBE/DBE (w	vith Agreement amount) to be utilized:
What equipment do you	u own to accomplish this Work? (A listing may be attached)
What equipment will yo	ou purchase/rent for the Work? (Specify which)
_	nnection with the surety which is providing the bond(s):
Surety's Name: Address:	
Name, address, phone process in Florida:	number and email of surety's resident agent for service of
Agent's Name:	
Address:	
D I	
Phone:	
Email:	
BIDDER:	

ATTACHMENT B PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

SWORN STATEMENT PURSUANT TO ARTICLE V. MANATEE COUNTY PROCUREMENT CODE

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn	statement is submitted to the	e Manatee County Board of County Commission	oners by
Print indivi	idual's name and title]		
for		Print name of entity submitting swo	orn statement]
whose bus	iness address is		
`	,	Identification Number (FEIN) ise individual signing this sworn statement:	
procureme manageme	nt of goods or services (inc	shall be awarded or receive an Owner's Agre- luding professional services) or an Owner's ve a grant of Owner's monies unless such p not:	lease, franchise, concession or
	` ,	bery or attempting to bribe a public officer or any other public entity, including,	

- Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among bidders or prospective bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of Owner's Purchasing Official, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of quilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such an entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

ATTACHMENT B PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION

(Continued)

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction shall prove the same with documentation satisfactory to Owner's Purchasing Official. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with Owner.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY AGREEMENT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR COUNTY ADMINISTRATOR DETERMINES THAT SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.

		[Signature]	
STATE OF FLORIDA COUNTY OF			
Sworn to and subscribed before me this	day of	, 20 by	
Personally known	OR Produced identification	ion [Type of identification]	
Notary Public Signature	My com	mission expires	
Print, type or stamp Commissioned nam	ne of Notary Public]		

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

ATTACHMENT C SWORN STATEMENT THE FLORIDA TRENCH SAFETY ACT

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR BY AN OFFICER AUTHORIZED TO ADMINISTER OATHS.

1.	This Sworn Statement is so	ubmitted with <u>IFB</u>	NO.15-0382D	C SOE Phases 2 a	and 3 Interior Reno	<u>vation</u>
2.	This Sworn Statement is saddress isEmployer Identification Nu Security Number of the independent of th	mber (FEIN) is			and, if applicable, nas no FEIN, include	e business its Federal the Social
3.	Name of individual signing Whose relationship to the a					
4.	The Trench Safety Standa not limited to: Laws of REGULATIONS 29 CFR 1	Florida, Chapter	rs 90-96, TRE	NCH SAFETY A		
5.	The undersigned assures to indemnify and hold harm arising from the failure to c	nless Owner and	Engineer, and			
6.	The undersigned has appre	opriated the follow Units of	ving costs for c	ompliance with the	e applicable standard	ls:
	Trench Safety Measure (Description)		Unit <u>Quantity</u>	Unit Cost	Extended <u>Cost</u>	
	a			\$		
	b			\$		
	C		-	\$		
	d			\$		
7.	The undersigned intends to	o comply with the			owing procedures:	
	THE UNDERSIGNED, in available geotechnical infinecessary to adequately decreased in the control of the control	ormation and m	ade such oth	er investigations	and tests as they	
				(AUTHORIZED S	IGNATURE / TITLE)	
	SWORN to and subscribed (Impress official seal)	before me this _	da	y of	20	
	Notary Public, State of Flor	rida:				_
	My commission expires:					



R. B. "Chips" Shore

CLERK OF THE CIRCUIT COURT AND COMPTROLLER OF MANATEE COUNTY

1115 Manatee Avenue West, Bradenton, Florida 34205 - Phone (941) 749-1800 - Fax (941) 741-4082 P.O. Box 25400, Bradenton, Florida 34206 - www.manateeclerk.com

ATTACHMENT D: E PAYABLES APPLICATION

Company name	
Contact person	
Phone number	
Email Address	
FINAN	NCE USE ONLY
Open orders: YES or NO	
PEID	
CREATE DATE	
CONFIRMED WITH	
	d phone number
IFAS	
BANK	Return completed form to:
	Via email to: lori.bryan@manateeclerk.com
INITIALS	Via fax to: (941) 741-4011
	Via mail:
	PO Box 1000
Revised: June 26, 2013	Bradenton, Fl 34206

ATTACHMENT E INSURANCE AND BONDING REQUIREMENTS

The successful bidder will not commence Work under the resulting Agreement until all insurance under this section, and such insurance coverage as might be required by Owner, has been obtained. The successful bidder shall obtain, and submit to the Purchasing Division within ten (10) calendar days from the date of notice of intent to award, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

Insurance / Bond Type	Required Limits
1. Automobile Liability:	Bodily Injury and Property Damage, Owned/Non-Owned/Hired; Automobile included \$ 1,000,000 each occurrence This policy shall contain severability of interests' provisions.
Commercial General Liability: (Occurrence Form - patterned after the current ISO form)	Bodily Injury and Property Damage \$ 1,000,000 single limit per occurrence; \$ 2,000,000 aggregate This shall include Premises and Operations; Independent Contractors; Products and Completed Operations and Contractual Liability. This policy shall contain severability of interests' provisions.
3. Employer's Liability:	\$1,000,000 single limit per occurrence
4. Worker's Compensation:	Statutory Limits of Chapter 440, Florida Statutes, and all Federal Government Statutory Limits & Requirements
5. Other Insurance, as noted:	 a. Aircraft Liability \$ per occurrence Coverage shall be carried in limits of not less than \$5,000,000 each occurrence if applicable to the completion of the services under this Agreement. b. Installation Floater \$ If the resulting Agreement does not include construction of or additions to above ground building or structures, but does involve the installation of machinery or equipment, successful bidder shall provide an "Installation Floater" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s). c. Maritime Coverage (Jones Act) \$ per occurrence Coverage shall be maintained where applicable to the completion of the Work.

Insurance / Bond Type	Required Limits
	d. Pollution
	\$ per occurrence
	e. Professional Liability
	\$ per claim and in the aggregate
	 \$1,000,000 per claim and in the aggregate
	 \$2,000,000 per claim and in the aggregate
	f. Project Professional Liability
	\$ per occurrence
	g. Property Insurance
	\$
	If the resulting Agreement includes construction of or additions to above ground buildings or structures, bidder shall provide "Builder's Risk" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).
	To the extent that property damage is covered by commercial insurance, Owner and successful bidder agree to waive all subrogation rights against each other, except such rights as they may have to the proceeds of such insurance. Successful bidder shall require a similar waiver of subrogation from each of its bidder personnel and subconsultants, to include Special Consultants; successful bidder shall provide satisfactory written confirmation to Owner of these additional waivers.
	h. U.S. Longshoreman's and Harborworker's Act
	Coverage shall be maintained where applicable to the completion of the Work.
	i.
	\$ per occurrence
	j. 🔲 Watercraft
	\$ per occurrence
6. 🗵 Bid Bond:	Bid bond shall be submitted by bidder for 5% of the total amount of the bid.
7. Payment and Performance Bond:	Payment and Performance Bond shall be submitted by bidder for 100% of the award amount.
Reviewed by Risk: 01/05/2015	\$

INSURANCE REQUIREMENTS

The amounts and types of insurance coverage shall conform to the minimum requirements set forth in this Attachment, with the use of Insurance Services Office (ISO) forms and endorsements or their equivalents. If successful bidder has any self-insured retentions or deductibles under any of the listed minimum required coverage, successful bidder must identify on the certificate of insurance the nature and amount of such self-insured retentions or deductibles and provide satisfactory evidence of financial responsibility for such obligations. All self-insured retentions or deductibles will be successful bidder's sole responsibility.

Nothing herein shall in any manner create any liability of Owner in connection with any claim against the successful bidder for labor, services, or materials, or of Subcontractors; and nothing herein shall limit the liability of the successful bidder or successful bidder's sureties to Owner or to any workers, suppliers, material men or employees in relation to the resulting Agreement.

Builder's Risk Coverage. The successful bidder shall procure and maintain during the entire course of the Work a builder's risk policy, completed value form, insured to provide coverage on an all risk basis, including coverage for off-site stored materials and including coverage for theft. This coverage shall not be lapsed or cancelled because of partial Acceptance by the Owner prior to final Acceptance of the Project. Successful bidder shall recommend to Owner any additions to the Project Costs resulting from any casualty described in Article XII General Conditions of the Construction Agreement, including those costs, expenses and other charges (including normal and ordinary compensation to the successful bidder) necessary for reconstruction of the Project substantially in accordance with the Project Plans and Specifications. The nature, level and type of builder's risk coverage (including completed value or replacement cost coverage) shall be determined by Owner through insurers selected by successful bidder and approved by Owner.

Excess Policy or Umbrella. An excess policy or umbrella may be used to cover limits over and above Commercial General Liability.

Subcontractor's Public Liability and Property Damage Insurance. The successful bidder shall require each Subcontractor to procure and maintain during the term of the subcontract, insurance of the type specified above, or insure the activities of Subcontractors in its policy, as approved by Owner prior to performance of any services. The levels of coverage as set forth in the table above may be adjusted to require a reduced level of coverage consistent with the scope of Work to be provided by that particular Subcontractor. Any reduction in the levels of insurance coverage required by the successful bidder's standard form of subcontract shall be approved by the Owner.

Waiver of Subrogation. Owner and successful bidder waive against each other and the Owner's separate Vendors, Contractors, Design Consultants, Subcontractors agents and employees of each and all of them, all damages covered by property insurance provided herein, except such rights as they may have to the proceeds of such insurance. The successful bidder and Owner shall, where appropriate, require similar waivers of subrogation from the Owner's separate Vendors, Design Consultants and Subcontractors and shall require each of them to include similar waivers in their contracts.

Worker's Compensation Insurance. The successful bidder shall procure and maintain during the term of the Contract Documents, workers' compensation insurance for all its employees connected with the Work and shall require all Subcontractors similarly to provide workers' compensation insurance for all their employees unless such employees are covered by the protection afforded by successful bidder. Such insurance shall comply with the Florida Workers' Compensation Law. The successful bidder shall provide adequate insurance, satisfactory to Owner, for the protection of employees not otherwise protected.

By way of its submission of a bid hereto, bidder:

- a. Represents that bidder maintains, and will maintain during the term of any Agreement arising from this solicitation, all insurance coverage required herein from responsible companies duly authorized to do business under the laws of the State of Florida that hold a rating of "A-" or better by Best's Key Guide, latest edition, and are deemed acceptable to Owner as set forth in this solicitation.
- b. Agrees that insurance, as specified herein, shall remain in force and effect without interruption from the date of commencement of the Work throughout the duration of the Project, and shall remain in effect for at least two (2) years after the termination of the Contract Documents.
- c. Agrees that if the initial or any subsequently issued certificate of insurance expires prior to completion of the Work, successful bidder shall furnish to Owner renewal or replacement certificate(s) of insurance no later than ten (10) calendar days after the expiration date on the certificate. Failure of successful bidder to provide Owner with such renewal certificate(s) shall be considered justification for Owner to terminate any and all Agreements.
- d. Agrees that bidder and/or its insurance carrier shall provide thirty (30) days written notice to Owner of policy cancellation or non-renewal on the part of the insurance carrier or the successful bidder. Successful bidder shall also notify Owner, in a like manner, within twenty-four (24) hours after receipt, of any notices of expiration, cancellation, non-renewal or material change in coverage or limits received by successful bidder from its insurer and nothing contained herein shall relieve successful bidder of this requirement to provide notice. In the event of a reduction in the aggregate limit of any policy to be provided by successful bidder hereunder, successful bidder shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy.
- e. Agrees that failure of successful bidder to obtain and maintain proper amounts of insurance at all times as called for herein shall constitute a material breach of the resulting Agreement, which may result in immediate termination.
- f. Agrees that, should at any time the successful bidder not maintain the insurance coverage(s) required herein, Owner may terminate the Agreement or at its sole discretion shall be authorized to purchase such coverage(s) and charge successful bidder for such coverage(s) purchased. If successful bidder fails to reimburse Owner for such costs within thirty (30) days after demand, Owner has the right to offset these costs from any amount due successful bidder under this Agreement or any other agreement between Owner and successful bidder. Owner shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverage(s) purchased or the insurance companies used. The decision of Owner to purchase such insurance coverage(s) shall in no way be construed to be a waiver of any of its rights under the Contract Documents.
- g. Agrees to provide, upon request, the <u>entire and complete insurance policies</u> required herein.

h. The payment of deductibles for insurance required of the successful bidder by the Contract Documents shall be the sole responsibility of the successful bidder.

Certificate of Insurance Requirements:

- a. Certificates of insurance in duplicate evidencing the insurance coverage specified herein shall be filed with the Purchasing Division <u>before operations are begun</u>. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also <u>shall refer specifically to the bid number and title of the Project, and must read:</u> For any and all work performed on behalf of Manatee County.
- b. **Additional Insured:** The Automobile Liability and Commercial General Liability policies provided by the successful bidder to meet the requirements of this IFB shall name Manatee County, Board of County Commissioners, as an additional insured as to the operations of the successful bidder under this IFB and shall contain severability of interests provisions.
- c. In order for the certificate of insurance to be accepted it **must** comply with the following:
 - 1. The "Certificate Holder" shall be:

Manatee County
Board of County Commissioners
Bradenton, FL
IFB# 15-0382DC SOE Phases 2 and 3 Interior Renovation Project
For any and all work performed on behalf of Manatee County.

2. Certificate shall be mailed to:

Manatee County Purchasing Division 1112 Manatee Avenue West, Suite 803 Bradenton, FL 34205

Attn: Deborah Carey-Reed, CPPB, Contracts Specialist

BONDING REQUIREMENTS

Bid Bond/Certified Check. By submitting a bid to this IFB, the bidder agrees should the bidder's bid be accepted, to execute the form of Agreement and present the same to Manatee County for approval within ten (10) calendar days after notice of intent to award. The bidder further agrees that failure to execute and deliver said form of Agreement within ten (10) calendar days will result in damages to Manatee County and as guarantee of payment of same a bid bond/certified check shall be enclosed within the submitted sealed bid in the amount of five (5%) percent of the total amount of the bid. The bidder further agrees that in case the bidder fails to enter into an Agreement, as prescribed by Manatee County, the bid bond/certified check accompanying the bid shall be forfeited to Manatee County as agreed liquidated damages. If Owner enters into an Agreement with a bidder, or if Owner rejects any and/or all bids, accompanying bond will be promptly returned.

Payment and Performance Bonds. Prior to commencing Work, the successful bidder shall obtain, for the benefit of and directed to Owner, a Payment and Performance Bond satisfying the requirements of Section 255.05, Florida Statutes, covering the faithful performance by the successful bidder of its obligation under the Contract Documents, including but not limited to the construction of the Project on the Project Site and the payment and obligations arising thereunder, including all payments to Subcontractors, laborers, and materialmen. The surety selected by the successful bidder to provide the Payment and Performance Bond shall be approved by Owner prior to issuance of such Bond, which approval shall not be unreasonably withheld or delayed provided that surety is rated A- or better by Best's Key Guide, latest edition.

Failure to provide the required bonds on the prescribed form may result in successful bidder being deemed nonresponsive. Bonds must be in the form prescribed in Section 255.05, Florida Statutes, and must not contain notice, demand or other terms and conditions, including informal pre-claim meetings, not provided for in Section 255.05, Florida Statutes.

Surety of such bonds shall be in an amount equal to 100% of the Contract Price issued by a duly authorized and nationally recognized surety company, authorized to do business in the State of Florida, satisfactory to Owner. Surety shall be rated as "A-" or better by Best's Key Guide, latest edition.. The attorney-in-fact who signs the bonds must file with the bonds, a certificate and effective dated copy of power-of-attorney. Payment and Performance Bonds shall be issued to Manatee County, a political subdivision of the State of Florida, within ten (10) calendar days after notice of intent to award.

In addition, pursuant to Section 255.05(1)(b), Florida Statutes, prior to commencing Work, the successful bidder shall be responsible and bear all costs associated to record the Payment and Performance Bond with the Manatee County Clerk of the Circuit Court. A certified copy of said recording shall be furnished to the Purchasing Division upon filing. Pursuant to Section 255.05(1)(b), Florida Statutes, Owner will make no payment to the successful bidder until the successful bidder has complied with this paragraph.

Furnishing Payment and Performance Bonds shall be requisite to execution of an Agreement with Owner. Said Payment and Performance Bonds will remain in force for the duration of the Agreement with the premiums paid by the successful bidder. Failure of the successful bidder to execute such Agreement and to supply the required bonds shall be just cause for cancellation of the award. Owner may then contract with the next lowest, responsive and responsible bidder or re-advertise this IFB. If another bidder is accepted, and notice given within ninety (90) days after the opening of the bids, this Acceptance shall bind the bidder as though they were originally the successful bidder.

Failure of Owner at any time to require performance by the successful bidder of any provisions set out in the resulting Agreement will in no way affect the right of Owner, thereafter, to enforce those provisions.

BIDDER'S INSURANCE STATEMENT

THE UNDERSIGNED hereto have read and understand the aforementioned insurance requirements of this IFB and note that the evidence of insurability shall be required within ten (10) days from the date of notice of intent to award.

Bidder Name:	Date:
Bidder's Signature:	
Print Name:	
Insurance Agency:	
Agent Name:	Agent Phone:
Agent Name.	Agent Friorie.

Please return this completed and signed statement with your bid.

CONSTRUCTION AGREEMENT

for

STIPULATED SUM

between

MANATEE COUNTY (AS OWNER)

_____(AS CONTRACTOR)

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CONSTRUCTION AGREEMENT FOR STIPULATED SUM IFB #15-0382DC SOE PHASES 2 AND 3 INTERIOR RENOVATION PROJECT

THIS AGREEMENT ("Agreement") is made and entered into by and between Manatee
County, a political subdivision of the State of Florida, referred to herein as "Owner", and the firm
of, incorporated in the State of and registered and licensed to do
business in the State of Florida (license #), referred to herein as "Contractor."

WHEREAS, the Owner intends to construct 15-0382DC Supervisor of Elections (SOE)

Phases 2 and 3 Interior Renovation Project, the aforementioned improvements being hereinafter referred to and defined as the "Project"; and

WHEREAS, in response to Owner's Invitation for Bid No. <u>15-0382DC</u> (the "IFB"), Contractor has submitted its Bid (the "Contractor's Bid") to provide the aforementioned construction services.

NOW THEREFORE, the Owner and the Contractor, in consideration of the mutual covenants hereinafter set forth, the sufficiency of which is hereby acknowledged, agree as follows:

- 1. Contract Documents. The Contract Documents consist of this Agreement and attached Exhibits, the attached General Conditions of the Construction Agreement, Supplementary Conditions (if any), Special Conditions (if any), Drawings (the titles of which are attached hereto as Exhibit A), Specifications (the titles of which are attached hereto as Exhibit B), Addenda issued prior to execution of this Agreement, the Invitation for Bid (including any Instructions to Bidders, Scope of Work, Bid Summary, Supplements, and Technical Specifications), any interpretations issued pursuant to the Invitation for Bid, the Contractor's Bid, permits, notice of intent to award, Notice to Proceed, purchase order(s), any other documents listed in this Agreement, and Modifications [to include written Amendment(s), Change Order(s), Work Directive Change(s) and Field Directive(s)] issued after execution of this Agreement. These form the Agreement, and are as fully a part of the Agreement as if attached or repeated herein. This Agreement represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. No other documents shall be considered Contract Documents.
- **2. Work.** The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

3. Date of Commencement and Substantial Completion.

- A. <u>Date of Commencement</u>. The date of commencement of the Work shall be the date fixed in a Notice to Proceed issued by the Owner.
- B. <u>Contract Time</u>. The Contract Time shall be measured from the date of commencement.

	C.	Substantial	Completion.	The	Contractor	shall	achieve	Substanti	a
Completion	of the en	ntire Work no	ot later than	_ days	from the d	ate of o	commence	ement, or	as
follows:									

Portion of Work Substantial Completion Date

subject to adjustments of this Contract Time as provided in the Contract Documents.

Time is of the essence in the Contract Documents and all obligations thereunder. If the Contractor fails to achieve Substantial Completion of the Work within the Contract Time and as otherwise required by the Contract Documents, the Owner shall be entitled to retain or recover from the Contractor, as liquidated damages and not as a penalty, the sum of \$1,742 per calendar day, commencing upon the first day following expiration of the Contract Time and continuing until the actual date of Substantial Completion. Such liquidated damages are hereby agreed to be a reasonable estimate of damages the Owner will incur as a result of delayed completion of the Work. The Owner may deduct liquidated damages as described in this paragraph from any unpaid amounts then or thereafter due the Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due the Contractor shall be payable to the Owner at the demand of the Owner, together with interest from the date of the demand at the maximum allowable rate.

4. Contract Sum.

- A. <u>Payment</u>. The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be ______ Dollars and Zero Cents (\$______), subject to additions and deductions as provided in the Contract Documents.
- B. <u>Alternates</u>. The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner. (State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)
 - C. <u>Unit Prices</u>. Unit prices, if any, are reflected in the Contractor's Bid.

5. Payments.

A. Progress Payments.

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

- (2) The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.
- (3) Payments shall be made by Owner in accordance with the requirements of Section 218.735, Florida Statutes.
- (4) Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect/Engineer may require. This schedule, unless objected to by the Owner or Architect/Engineer, shall be used as a basis for reviewing the Contractor's Applications for Payment.
- (5) Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- (6) Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
 - i. Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of ten percent (10.00%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 3.3.B. of the General Conditions;
 - ii. Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), supported by paid receipts, less retainage of ten percent (10.00%);
 - iii. Subtract the aggregate of previous payments made by the Owner; and
 - iv. Subtract amounts, if any, for which the Architect/Engineer has withheld or nullified an Application for Payment, in whole or in part as provided in Section 3.3.C. of the General Conditions.
- (7) The progress payment amount determined in accordance with Section 5.A(6) shall be further modified under the following circumstances:

- i. Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect/Engineer shall determine for incomplete Work, retainage applicable to such work and unsettled claims.
- ii. Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 3.2.B. of the General Conditions.
- (8) Reduction or limitation of retainage, if any, shall be as follows:

Notwithstanding the foregoing, upon completion of at least 50% of the Work, as determined by the Architect/Engineer and Owner, the Owner shall reduce to five percent (5%) the amount of retainage withheld from each subsequent progress payment.

- (9) Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.
- B. <u>Final Payment</u>. Final Payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:
 - (1) The Contractor has fully performed the Work except for the Contractor's responsibility to correct Work as provided in Section 2.4.C. of the General Conditions, and to satisfy other requirements, if any, which extend beyond final payment; and
 - (2) A final Application for Payment has been approved by the Architect/Engineer.

6. Termination or Suspension.

- A. <u>Termination</u>. The Agreement may be terminated by the Owner or the Contractor as provided in Article XIV of the General Conditions.
- B. <u>Suspension by Owner</u>. The Work may be suspended by the Owner as provided in Article XIV of the General Conditions.

7. Other Provisions.

A. <u>Substantial Completion Defined</u>. Substantial Completion shall be defined as provided in Article I of the General Conditions. In the event a temporary certificate of

occupancy or completion is issued establishing Substantial Completion, the Contractor shall diligently pursue the issuance of a permanent certificate of occupancy or completion.

- B. <u>Project Meetings</u>. There shall be a project meeting, at the jobsite or other location acceptable to the parties, on a regularly scheduled basis. The meeting will be attended by a representative of the Contractor, Architect/Engineer and Owner. These representatives shall be authorized to make decisions that are not otherwise contrary to the requirements of this Agreement.
- C. <u>Weather</u>. Any rainfall, temperatures below 32 degrees Fahrenheit or winds greater than 25 m.p.h. which actually prevents Work on a given day, shall be considered lost time and an additional day added to the Contract Time, provided no work could be done on site, and provided written notice has been submitted to the Owner by the Contractor documenting same.
- D. <u>Shop Drawings; Critical Submittals</u>. In consideration of the impact of timely review of submittals and shop drawings on the overall progress of the Work, it is hereby agreed that the Owner shall cause his agents and design professionals to accomplish the review of any particular "critical" submittals and/or shop drawings and return same to the Contractor within fourteen (14) days.
- E. <u>Applications for Payment</u>. Applications for Payment shall be submitted once monthly at regular intervals and shall include detailed documentation of all costs incurred.
- F. <u>Punch List</u>. Within 30 days after obtainment of Substantial Completion, the Owner shall generate a "punch list" of all work items requiring remedial attention by the Contractor. Within 5 days thereafter the Architect/Engineer shall assign a fair value to the punch list items, which sum shall be deducted from the next scheduled progress payment to the Contractor. Upon satisfactory completion of the punch list items, as certified by the Architect/Engineer, the previously deducted sum shall be paid to the Contractor.
- G. <u>Closeout documentation</u>. Within 30 days after obtainment of Substantial Completion and before final payment, Contractor shall gather and deliver to Owner all warranty documentation, all manufacturer's product and warranty literature, all manuals (including parts and technical manuals), all schematics and handbooks, and all as-built drawings.
- H. <u>Governing Provisions; Conflicts</u>. In the event of a conflict between this Agreement and the Specifications or as between the General Conditions and the Specifications, the Specifications shall govern.
- I. <u>E-Verify</u>. The Contractor's employment of unauthorized aliens is a violation of Section 274(e) of the Federal Immigration and Employment Act. The Contractor shall utilize the U.S. Department of Homeland Security E-Verify system to verify the employment eligibility of all new employees hired during the term of this Agreement, and shall require the same verification procedure of all Subcontractors.
- **8. Insurance and Bonding.** If and to the extent required by the Invitation for Bid documents, the Contractor shall furnish insurance coverage for (but not necessarily limited to)

workers' compensation, commercial general liability, auto liability, excess liability, and builder's risk. The Contractor shall furnish to the Owner all appropriate policies and Certificate(s) of Insurance. The Contractor shall also post a Payment and Performance Bond for the Contract Sum, within ten (__) days following notification of intent to award, and otherwise in accordance with the Invitation for Bid documents.

- **9. Independent Contractor.** The Contractor acknowledges that it is functioning as an independent contractor in performing under the terms of this Agreement, and it is not acting as an employee of the Owner.
- **10. Entire Agreement.** This Agreement (inclusive of the Contract Documents incorporated herein by reference) represents the full agreement of the parties.

11. Amendments; Waivers; Assignment.

- A. <u>Amendments</u>. This Agreement may be amended only pursuant to an instrument in writing that has been jointly executed by authorized representatives of the parties hereto.
- B. <u>Waivers</u>. Neither this Agreement nor any portion of it may be modified or waived orally. However, each party (through its governing body or properly authorized officer) shall have the right, but not the obligation, to waive, on a case-by-case basis, any right or condition herein reserved or intended for the benefit or protection of such party without being deemed or considered to have waived such right or condition for any other case, situation, or circumstance and without being deemed or considered to have waived any other right or condition. No such waiver shall be effective unless made in writing with an express and specific statement of the intent of such governing body or officer to provide such waiver.
- C. <u>Assignment</u>. The rights and obligations of either party to this Agreement may be assigned to a third party only pursuant to a written amendment hereto.
- **12. Validity.** Each of the Owner and Contractor represents and warrants to the other its respective authority to enter into this Agreement.
- any portion hereof may be challenged by any party hereto, and each party hereto hereby waives any right to initiate any such challenge. Furthermore, if this Agreement or any portion hereof is challenged by a third party in any judicial, administrative, or appellate proceeding (each party hereby covenanting with the other party not to initiate, encourage, foster, promote, cooperate with, or acquiesce to such challenge), the parties hereto collectively and individually agree, at their individual sole cost and expense, to defend in good faith its validity through a final judicial determination or other resolution, unless all parties mutually agree in writing not to defend such challenge or not to appeal any decision invalidating this Agreement or any portion thereof.
- 14. Disclaimer of Third-Party Beneficiaries; Successors and Assigns. This Agreement is solely for the benefit of the parties hereto, and no right, privilege, or cause of action shall by reason hereof accrue upon, to, or for the benefit of any third party. Nothing in this Agreement is intended or shall be construed to confer upon or give any person, corporation,

partnership, trust, private entity, agency, or other governmental entity any right, privilege, remedy, or claim under or by reason of this Agreement or any provisions or conditions hereof. This Agreement shall be binding upon, and its benefits and advantages shall inure to, the successors and assigns of the parties hereto.

15. Construction.

- A. <u>Headings and Captions</u>. The headings and captions of articles, sections, and paragraphs used in this Agreement are for convenience of reference only and are not intended to define or limit their contents, nor are they to affect the construction of or be taken into consideration in interpreting this Agreement.
- B. <u>Legal References</u>. All references to statutory sections or chapters shall be construed to include subsequent amendments to such provisions, and to refer to the successor provision of any such provision. References to "applicable law" and "general law" shall be construed to include provisions of local, state and federal law, whether established by legislative action, administrative rule or regulation, or judicial decision.
- 16. Severability. The provisions of this Agreement are declared by the parties hereto to be severable. In the event any term or provision of this Agreement shall be held invalid by a court of competent jurisdiction, such invalid term or provision should not affect the validity of any other term or provision hereof; and all such terms and provisions hereof shall be enforceable to the fullest extent permitted by law as if such invalid term or provision had never been part of this Agreement; provided, however, if any term or provision of this Agreement is held to be invalid due to the scope or extent thereof, then, to the extent permitted by law, such term or provision shall be automatically deemed modified in order that it may be enforced to the maximum scope and extent permitted by law.
- 17. Governing Law; Venue. This Agreement shall be governed by the laws of the State of Florida. Venue for any petition for writ of certiorari or other court action allowed by this Agreement shall be in the Circuit Court of the Twelfth Judicial Circuit in and for Manatee County, Florida.
- 18. Attorney's Fees and Costs. In any claim dispute procedure or litigation arising from this Agreement, each party hereto shall be solely responsible for paying its attorney's fees and costs.
- 19. Notices. All notices, comments, consents, objections, approvals, waivers, and elections under this Agreement shall be in writing and shall be given only by hand delivery for which a receipt is obtained, or certified mail, prepaid with confirmation of delivery requested, or by electronic mail with delivery confirmation. All such communications shall be addressed to the applicable addressees set forth below or as any party may otherwise designate in the manner prescribed herein.

To the Owner: Manatee County Public Works Department

Attn: Sherrie Robinson, Project Manager

1022 26th Avenue East

	Email:
To the Contractor:	
	F 11.

Notices, comments, consents, objections, approvals, waivers, and elections shall be deemed given when received by the party for whom such communication is intended at such party's address herein specified, or such other physical address or email address as such party may have substituted by notice to the other.

20. Exhibits. Exhibits to this Agreement are as follows:

Exhibit A—Title(s) of Drawings

Exhibit B—Title(s) of Specifications

Exhibit C—Affidavit of No Conflict

Exhibit D—Certificate(s) of Insurance

Exhibit E—Payment and Performance Bond

Exhibit F—Standard Forms

- 1—Application for Payment
- 2—Certificate of Substantial Completion
- 3—Final Reconciliation / Warranty / Affidavit
- 4—Change Order

WHEREFORE, the parties hereto have executed this Agreement as of the date last executed below.

Name of Contractor	
By:	-
Printed Name:	
Title:	_
Date:	_
MANATEE COUNTY, a political soft the State of Florida	subdivision
By:	-
Printed Name:	
Title:	_
Date:	

GENERAL CONDITIONS

of the

CONSTRUCTION AGREEMENT

GENERAL CONDITIONS ARTICLE I DEFINITIONS

- **1.1 Definitions.** For purposes of the Contract Documents, the following terms shall have the following meanings.
- A. <u>Acceptance</u>: The acceptance of the Project into the Owner's operating public infrastructure.
- B. <u>Application for Payment</u>: The form approved and accepted by the Owner, which is to be used by Contractor in requesting progress payments or final payment and which is to include such supporting documentation as is required by the Contract Documents.

C.	Architect/Engineer:	(name)	

- D. <u>Change Order</u>: A written order signed by the Owner, the Architect/Engineer and the Contractor authorizing a change in the Project Plans and/or Specifications and, if necessary, a corresponding adjustment in the Contract Sum and/or Contract Time, pursuant to Article V.
- E. <u>Compensable Delay</u>: Any delay beyond the control and without the fault or negligence of the Contractor resulting from Owner-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by Owner.
- F. <u>Contractor's Personnel</u>: The Contractor's key personnel designated by Contractor.
- G. <u>Construction Services</u>: The Construction Services to be provided by Contractor pursuant to Section 2.4, in accordance with the terms and provisions of the Contract Documents.
- H. <u>Contract Sum</u>: The total compensation to be paid to the Contractor for Construction Services rendered pursuant to the Contract Documents, as set forth in Contractor's Bid, unless adjusted in accordance with the terms of the Contract Documents.
- I. <u>Construction Team</u>: The working team established pursuant to Section 2.1.B.
- J. <u>Contract Time</u>: The time period during which all Construction Services are to be completed pursuant to the Contract Documents, to be set forth in the Project Schedule.

- K. <u>Days</u>: Calendar days except when specified differently. When time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.
- L. <u>Defective</u>: When modifying the term "Work", referring to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or that does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or that has been damaged prior to Owner's approval of final payment (unless responsibility for the protection thereof has been assumed by Owner).
- M. Excusable Delay: Any delay beyond the control and without the negligence of the Contractor, the Owner, or any other contractor caused by events or circumstances such as, but not limited to, acts of God or of a public enemy, fires, floods, freight embargoes, acts of government other than Owner or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.
- N. <u>Field Directive</u>: A written order issued by Owner which orders minor changes in the Work not involving a change in Contract Time, to be paid from the Owner's contingency funds.
- O. <u>Final Completion Date</u>: The date upon which the Project is fully constructed and all Work required on the Project and Project Site is fully performed as verified in writing by the Owner.
- P. <u>Float or Slack Time</u>: The time available in the Project Schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.
- Q. <u>Force Majeure</u>: Those conditions constituting excuse from performance as described in and subject to the conditions described in Article XII.
- R. <u>Inexcusable Delay</u>: Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight or diligence on the part of the Contractor.
- S. <u>Non-prejudicial Delay</u>: Any delay impacting a portion of the Work within the available total Float or Slack Time and not necessarily preventing Substantial Completion of the Work within the Contract Time.
- T. <u>Notice to Proceed</u>: Written notice by Owner (after execution of Contract) to Contractor fixing the date on which the Contract Time will commence to run and on which Contractor shall start to perform the Work.
 - U. Owner: Manatee County, a political subdivision of the State of Florida.

- V. <u>Owner's Project Representative</u>: The individual designated by Owner to perform those functions set forth in Section 7.8.
- W. <u>Payment and Performance Bond</u>: The Payment and Performance Bond security posted pursuant to Section 2.4.Y to guarantee payment and performance by the Contractor of its obligations hereunder.
- X. <u>Permitting Authority</u>: Any applicable governmental authority acting in its governmental and regulatory capacity which is required to issue or grant any permit, certificate, license or other approval which is required as a condition precedent to the commencement or approved of the Work, or any part thereof, including the building permit.
- Y. <u>Prejudicial Delay</u>: Any excusable or compensable delay impacting the Work and exceeding the total float available in the Project Schedule, thus preventing completion of the Work within the Contract Time unless the Work is accelerated.
- Z. <u>Progress Report</u>: A report to Owner that includes all information required pursuant to the Contract Documents and submitted in accordance with Section 2.4.EE, hereof.
- AA. <u>Project</u>: 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 Owner and by separate contractors. For the purposes of the Contract Documents, the term Project shall include all areas of proposed improvements and all areas which may reasonably be judged to have an impact on the Project.
- BB. <u>Project Costs</u>: The costs incurred by the Contractor to plan, construct and equip the Project and included within, and paid as a component of, the Contract Sum.
- CC. <u>Project Manager</u>: Subject to the prior written consent of Owner, the individual designated to receive notices on behalf of the Contractor, or such other individual designated by the Contractor, from time to time, pursuant to written notice in accordance with the Contract Documents.
- DD. <u>Project Plans and Specifications</u>: The one hundred percent (100%) construction drawings and specifications prepared by the Architect/Engineer, and any changes, supplements, amendments or additions thereto approved by the Owner, which shall also include any construction drawings and final specifications required for the repair or construction of the Project, as provided herein.
- EE. <u>Project Schedule</u>: The schedule and sequence of events for the commencement, progression and completion of the Project, developed pursuant to Section 2.3., as such schedule may be amended as provided herein.
- FF. <u>Project Site</u>: The site depicted in the Project Plans and Specifications, inclusive of all rights of way, temporary construction easements or licensed or leased sovereign lands.

- GG. <u>Pre-operation Testing</u>: All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the Work have been properly constructed and do operate in accordance with the Contract Documents for their intended purposes.
- HH. <u>Procurement Ordinance</u>: The Manatee County Procurement Code, Chapter 2-26 of the Manatee County Code of Laws, as amended from time to time.
- II. <u>Punch List Completion Date</u>: The date upon which all previously incomplete or unsatisfactory items, as identified by the Contractor, the Architect/Engineer and/or the Owner are completed in a competent and workmanlike manner, consistent with standards for Work of this type and with good building practices in the State of Florida.
- JJ. <u>Subcontractor</u>: Any individual (other than a direct employee of the Contractor) or organization retained by Contractor to plan, construct or equip the Project pursuant to Article IV.
- KK. <u>Substantial Completion and Substantially Complete</u>: 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; provided, however, that as a condition precedent to Substantial Completion, the Owner has received all certificates of occupancy or completion and other permits, approvals, licenses, and other documents from any governmental authority which are necessary for the beneficial occupancy of the Project.
- LL. <u>Substantial Completion Date</u>: The date on which the Project is deemed to be Substantially Complete, as evidenced by receipt of (i) the Architect/Engineer's certificate of Substantial Completion, (ii) written Acceptance of the Project by the Owner, and (iii) approvals of any other authority as may be necessary or otherwise required.
 - MM. <u>Unit Price Work</u>: Work to be paid for on the basis of unit prices.
- NN. <u>Work</u>: The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all 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.
- OO. <u>Work Directive Change</u>: A written directive to Contractor, issued on or after the effective date of the Agreement pursuant to Section 5.8 and signed by Owner's Project Representative, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or responding to emergencies.

ARTICLE II RELATIONSHIP AND RESPONSIBILITIES

- **2.1 Relationship between Contractor and Owner.** The Contractor accepts the relationship of trust and confidence established with Owner pursuant to the Contract Documents. The Contractor shall furnish its best skill and judgment and cooperate with Owner and Owner's Project Representative in furthering the interests of the Owner. The Contractor agrees to provide the professional services required to complete the Project consistent with the Owner's direction and the terms of the Contract Documents. All services provided hereunder by Contractor, either directly or through Subcontractors, shall be provided in accordance with sound construction practices and applicable professional construction standards.
- A. <u>Purpose</u>. The purpose of the Contract Documents is to provide for the provision of construction services for the Project on the Project Site by the Contractor, and construction of the Project by the Contractor in accordance with the Project Plans and Specifications. The further purpose of the Contract Documents is to define and delineate the responsibilities and obligations of the parties to the Contract Documents and to express the desire of all such parties to cooperate together to accomplish the purposes and expectations of the Contract Documents.
- B. <u>Construction Team</u>. The Contractor, Owner and Architect/Engineer shall be called the "Construction Team" and shall work together as a team commencing upon full execution of the Contract Documents through Substantial Completion. As provided in Section 2.2, the Contractor and Architect/Engineer shall work jointly through completion and shall be available thereafter should additional services be required. The Contractor shall provide leadership to the Construction Team on all matters relating to construction. The Contractor understands, acknowledges and agrees that the Architect/Engineer shall provide leadership to the Construction Team on all matters relating to design.
- C. <u>Response to Invitation for Bid.</u> The Contractor acknowledges that the representations, statements, information and pricing contained in its Bid have been relied upon by the Owner and have resulted in the award of this Project to the Contractor.
- **2.2 General Contractor Responsibilities.** In addition to the other responsibilities set forth herein, the Contractor shall have the following responsibilities pursuant to the Contract Documents:
- A. <u>Personnel</u>. The Contractor represents that it has secured, or shall secure, all personnel necessary to perform the Work, none of whom shall be employees of the Owner. Primary liaison between the Contractor and the Owner shall be through the Owner's Project Representative and Contractor's Project Manager. All of the services required herein shall be performed by the Contractor or under the Contractor's supervision, and all personnel engaged in the Work shall be fully qualified and shall be authorized or permitted under law to perform such services.

- B. <u>Cooperation with Architect/Engineer</u>. The Contractor's services shall be provided in conjunction with the services of the Architect/Engineer. In the performance of professional services, the Contractor acknowledges that time is critical for Project delivery. The Contractor acknowledges that timely construction utilizing the services of an Architect/Engineer and a Contractor requires maximum cooperation between all parties.
- C. <u>Timely Performance</u>. The Contractor shall perform all services as expeditiously as is consistent with professional skill and care and the orderly progress of the Work, in accordance with the Project Schedule. Verification of estimated Project Schedule goals will be made as requested by the Owner.
- D. <u>Duty to Defend Work</u>. In the event of any dispute between the Owner and any Permitting Authority that relates to the quality, completeness or professional workmanship of the Contractor's services or Work, the Contractor shall, at its sole cost and expense, cooperate with the Owner to defend the quality and workmanship of the Contractor's services and Work.
- Trade and Industry Terminology. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a wellknown technical or trade meaning are used to describe Work, materials, or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of Owner or Contractor, or any of their agents or employees from those set forth in the Contract Documents. Computed dimensions shall govern over scaled dimensions.
- **2.3 Project Schedule**. The Contractor, within ten (10) days after being awarded the Contract, shall prepare and submit for the Owner's and Architect/Engineer's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of Work.
 - A. The Project Schedule shall show a breakdown of all tasks to be performed, and their relationship in achieving the completion of each phase of Work, subject to review of Owner and Architect/Engineer and approval or rejection by Owner. The Project Schedule shall show, at a minimum, the approximate dates on which each segment of the Work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The Project Schedule shall

include all phases of procurement, approval of shop drawings, proposed Change Orders in progress, schedules for Change Orders, and performance testing requirements. The Project Schedule shall include a construction commencement date and Project Substantial Completion Date, which dates shall accommodate known or reasonably anticipated geographic, atmospheric and weather conditions.

- B. The Project Schedule shall serve as the framework for the subsequent development of all detailed schedules. The Project Schedule shall be used to verify Contractor performance and to allow the Owner's Project Representative to monitor the Contractor's efforts.
- C. The Project Schedule may be adjusted by the Contractor pursuant to Article V. The Owner shall have the right to reschedule Work provided such rescheduling is in accord with the remainder of terms of the Contract Documents.
- D. The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect/Engineer's approval. The Architect/Engineer'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/Engineer reasonable time to review submittals. If the Contractor fails to submit a 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.
- E. The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect/Engineer.
- **2.4 Construction Services.** The Contractor shall provide the following Construction Services:
- A. <u>Construction of Project</u>. The Contractor shall work from the receipt of a Notice to Proceed through the Substantial Completion of the Project in accordance with the terms of the Contract Documents to manage the construction of the Project. The Construction Services provided by the Contractor to construct the Project shall include without limitation (1) all services necessary and commensurate with established construction standards, and (2) all services described in the Invitation for Bid and the Bid.
- B. <u>Notice to Proceed</u>. A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. Contractor shall start to perform the Work on the date specified in the Notice to Proceed, but no Work shall be done at the site prior to the issuance of the Notice to Proceed.
- C. <u>Quality of Work</u>. If at any time the labor used or to be used appears to the Owner as insufficient or improper for securing the quality of Work required or the required rate

of progress, the Owner may order the Contractor to increase its efficiency or to improve the character of its Work, and the Contractor shall conform to such an order. Any such order shall not entitle Contractor to any additional compensation or any increase in Contract Time. The failure of the Owner to demand any increase of such efficiency or any improvement shall not release the Contractor from its obligation to secure the quality of Work or the rate of progress necessary to complete the Work within the limits imposed by the Contract Documents. The Owner may require the Contractor to remove such personnel as the Owner deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Project is deemed to be contrary to the Owner's interest. The Contractor shall provide good quality workmanship and shall promptly correct construction defects without additional compensation. Acceptance of the Work by the Owner shall not relieve the Contractor of the responsibility for subsequent correction of any construction defects.

- D. <u>Materials</u>. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by Architect/Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the Contract Documents.
- E. <u>Accountability for Work</u>. The Contractor shall be solely accountable for its Work, including plans review and complete submittals. The Contractor shall be solely responsible for means and methods of construction.
- F. <u>Contract Sum</u>. The Contractor shall construct the Project so that the Project can be built for a cost not to exceed the Contract Sum.
- G. <u>Governing Specifications</u>. The Project shall be constructed in accordance with applicable Owner design standards and guidelines. In the absence of specified Owner design standards or guidelines, the Architect/Engineer shall use, and the Contractor shall comply with, the most recent version of the applicable FDOT or AASHTO design standards. In general, the Project shall be constructed by the Contractor in accordance with applicable industry standards. The Contractor shall be responsible for utilizing and maintaining current knowledge of any laws, ordinances, codes, rules, regulations, standards, guidelines, special conditions, specifications or other mandates relevant to the Project or the services to be performed.
- H. <u>Adherence to Project Schedule</u>. The development and equipping of the Project shall be undertaken and completed in accordance with the Project Schedule, and within the Contract Time described therein.
- I. <u>Superintendent</u>. 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.
- (1) The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect/Engineer the name and qualifications of the proposed superintendent. The Architect/Engineer may reply within 14 days to the Contractor in

writing stating (1) whether the Owner or the Architect/Engineer has reasonable objection to the proposed superintendent or (2) that the Architect/Engineer requires additional time to review. Failure of the Architect/Engineer to reply within 14 days shall constitute notice of no reasonable objection.

- (2) The Contractor shall not employ a proposed superintendent to whom the Owner or Architect/Engineer has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not be unreasonably withheld or delayed.
- J. <u>Work Hours</u>. Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and Contractor shall not permit overtime work or the performance of Work on a Saturday, Sunday or legal holiday without Owner's written consent given after prior notice to Architect/Engineer (at least seventy-two (72) hours in advance).
- K. Overtime-Related Costs. Contractor shall pay for all additional Architect/Engineering charges, inspection costs and Owner staff time for any overtime work which may be authorized. Such additional charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by Owner on account of such overtime work. At Owner's option, such overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.
- L. <u>Insurance, Overhead and Utilities</u>. Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- M. <u>Cleanliness</u>. The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or 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 Site. Contractor shall restore to original conditions all property not designated for alteration by the Contract Documents If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from Contractor.
- N. <u>Loading.</u> Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- O. <u>Safety and Protection</u>. Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall

be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:

- (1) All employees on the Work and other persons and organizations who may be affected thereby;
- (2) All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Project Site; and
- (3) Other property at the Project Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss, and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic for the public and preservation of the Owner's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for safety and protection with regard to the Work shall continue until such time as all the Work is completed.

- P. <u>Emergencies</u>. In emergencies affecting the safety or protection of persons or the Work or property at the Project Site or adjacent thereto, Contractor, without special instruction or authorization from Architect/Engineer or Owner, shall act to prevent threatened damage, injury or loss. Contractor shall give Owner prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner determines that a change in the Project is required because of the action taken in response to an emergency, a Work Directive Change or Change Order will be issued to document the consequences of the changes or variation.
- Q. <u>Substitutes</u>. For substitutes not included with the Bid, but submitted after the effective date of the Contract Documents, Contractor shall make written application to Architect/Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by the Architect/Engineer in evaluating the proposed substitute. Architect/Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, Owner, Architect/Engineer and Contractor shall have access to any available Float Time in the Project Schedule. In the event that substitute materials or equipment not included as part of the Bid, but proposed after the effective date of the Contract Documents, are accepted and are less costly than the originally

specified materials or equipment, then the net difference in cost shall be credited to the Owner and an appropriate Change Order executed to adjust the Contract Sum.

- (1) If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Architect/Engineer if Contractor submits sufficient information to allow Architect/Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents.
- (2) Architect/Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Architect/Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Architect/Engineer's prior written acceptance which will be evidenced by either a Change Order or an approved shop drawing. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- (3) Contractor shall reimburse Owner for the charges of Architect/Engineer and Architect/Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Contract Documents and all costs resulting from any delays in the Work while the substitute was undergoing review.
- R. <u>Surveys and Stakes</u>. The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the Work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the Project or parts of the Project critical are involved, the Contractor shall employ a competent surveyor who is registered in the State of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the Work. The Contractor shall be held responsible for the preservation of all stakes and marks and if for any reason any of the stakes or marks or batter boards become destroyed or disturbed, they shall be immediately and accurately replaced by the Contractor.
- S. <u>Suitability of Project Site</u>. The Contractor has, by careful examination, satisfied itself as to the nature and location of the Work and all other matters which can in any way affect the Work, including, but not limited to details pertaining to borings, as shown on the drawings. Such boring information is not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the Project Site, approximately at the locations indicated. The Contractor has examined boring data, where available, made its own interpretation of the subsurface conditions and other preliminary data, and has based its Bid on its own opinion of the conditions likely to be encountered. Except as specifically provided in Sections 2.4.U., 5.4 and 5.5, no extra compensation or extension of time will be considered for any Project Site conditions that existed at the time of bidding. No verbal agreement or

conversation with any officer, agent or employee of the Owner, before or after the execution of the Agreement, shall affect or modify any of the terms or obligations herein contained.

- T. <u>Project Specification Errors</u>. If the Contractor, in the course of the Work, finds that the drawings, specifications or other Contract Documents cannot be followed, the Contractor shall immediately inform the Owner in writing, and the Owner shall promptly check the accuracy of the information. Any Work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's sole risk of non-payment and delay.
- U. <u>Remediation of Contamination</u>: Owner and Contractor recognize that remediation of subsurface conditions may be necessary due to potential hazardous materials contamination. Because the presence or extent of any contamination is not known, Contractor shall include no cost in the Contract Sum, and no time in the Project Schedule, for cost or delays that might result from any necessary remediation. The Project Schedule will provide a period of time between demolition activities and the start of the next activity to commence any remediation if needed. Contractor shall use all reasonable efforts in scheduling the Project to minimize the likelihood that remediation delays construction. Any hazardous materials remediation Work which Contractor agrees to perform shall be done pursuant to a Change Order or amendment consistent with the following:
 - (1) The dates of Substantial Completion shall be equitably adjusted based on delays, if any, incurred in connection with remediation efforts.
 - (2) Contractor, and any Subcontractors which have mobilized on the Project Site, shall be paid for demonstrated costs of overhead operations at the Project Site during any period of delay in excess of seven (7) days, except to the extent that Work proceeds concurrently with remediation. The categories of costs to be reimbursed are limited to those reasonably incurred at the jobsite during the delay period (such as trailers or offices, telephones, faxes, and the like); equipment dedicated to the Project and located at the Project Site; salaries and associated costs of personnel dedicated to the Project to the extent that they do not perform Work on other projects; and other jobsite costs that are reasonable and which are incurred during the delay period. Subcontractors and suppliers which have not mobilized are limited to the costs set forth in Section 2.4.U(3).
 - (3) Contractor and any Subcontractor or supplier on the Project who is eligible for compensation shall be paid any demonstrated costs of escalation in materials or labor, and reasonable costs of off-site storage of materials identified to the Project, arising as a result of any delay in excess of seven (7) days. Such Contractor, Subcontractors and suppliers are obligated to take all reasonable steps to mitigate escalation costs, such as through early purchase of materials.
 - (4) Contractor, for itself and all Subcontractors and suppliers on the Project, hereby agrees that the extension of time for delays under Section 2.4.U(1), and payment of the costs identified in Sections 2.4.U(2) and/or Section 2.4.U(3), are the sole remedies for costs and delays described in this

Section, and waives all claims and demands for extended home office overhead (including, but not limited to, "Eichleay" claims), lost profit or lost opportunities, and any special, indirect, or consequential damages arising as a result of delays described in this Section. The Contract Sum shall be adjusted to reflect payment of allowable costs.

- (5) If any delay described in this section causes the time or cost for the Project to exceed the Contract Time or the Contact Sum, then the Owner may terminate the Agreement pursuant to Section 14.2.
- (6) Contractor and any Subcontractor or supplier seeking additional costs under this Section 2.4.U. shall promptly submit estimates or any costs as requested by Owner, and detailed back-up for all costs when payment is sought or whenever reasonably requested by Owner. All costs are auditable, at Owner's discretion. Bid, estimate and pricing information reasonably related to any request for additional compensation will be provided promptly upon request.
- (7) Contractor shall include provisions in its subcontracts and purchase orders consistent with this Section.

V. Interfacing.

- (1) The Contractor shall take such measures as are necessary to ensure proper construction and delivery of the Project, including but not limited to providing that all procurement of long-lead items, the separate construction Subcontractors, and the general conditions items are performed without duplication or overlap to maintain completion of all Work on schedule. Particular attention shall be given to provide that each bid package clearly identifies the Work included in that particular separate subcontract, it's scheduling for start and completion, and its relationship to other separate contractors.
- (2) Without assuming any design responsibilities of the Architect/Engineer, the Contractor shall include in the Progress Reports required under this Section 2.4 comments on overlap with any other separate subcontracts, omissions, lack of correlation between drawings, and any other deficiencies noted, in order that the Architect/Engineer may arrange for necessary corrections.
- W. <u>Job Site Facilities</u>. The Contractor shall arrange for all job site facilities required and necessary to enable the Contractor and Architect/Engineer to perform their respective duties and to accommodate any representatives of the Owner which the Owner may choose to have present on the job.
- X. <u>Weather Protection</u>. The Contractor shall provide temporary enclosures of building areas in order to assure orderly progress of the Work during periods when extreme weather conditions are likely to be experienced. The Contractor shall also be responsible for

providing weather protection for Work in progress and for materials stored on the Project Site. A contingency plan shall be prepared upon request of the Owner for weather conditions that may affect the construction.

- Y. Payment and Performance Bond. Prior to the construction commencement date, the Contractor shall obtain, for the benefit of and directed to the Owner, a Payment and Performance Bond satisfying the requirements of Section 255.05, Florida Statutes, covering the faithful performance by the Contractor of its obligations under the Contract Documents, including but not limited to the construction of the Project on the Project Site and the payment of all obligations arising thereunder, including all payments to Subcontractors, laborers, and materialmen. The surety selected by the Contractor to provide the Payment and Performance Bond shall be approved by the Owner prior to the issuance of such Bond, which approval shall not be unreasonably withheld or delayed provided that the surety is rated A or better by Best's Key Guide, latest edition.
- Z. <u>Construction Phase; Building Permit; Code Inspections</u>. Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
 - (1) <u>Building Permit</u>. The Owner and Architect/Engineer shall provide such information to any Permitting Authority as is necessary to obtain approval from the Permitting Authority to commence construction prior to beginning construction. The Contractor shall pull any required building permit, and shall be responsible for delivering and posting the building permit at the Project Site prior to the commencement of construction. The cost of the building permit is included in the Contract Sum. The Owner and Architect/Engineer shall fully cooperate with the Contractor when and where necessary.
 - (2) <u>Code Inspections</u>. The Project requires detailed code compliance inspection during construction in disciplines determined by any Permitting Authority. These disciplines normally include, but are not necessarily limited to, structural, mechanical, electrical, plumbing general building and fire. The Contractor shall notify the appropriate inspector(s) and the Architect/Engineer, no less than 24 hours in advance, when the Work is ready for inspection and before the Work is covered up. All inspections shall be made for conformance with the applicable ordinances and building codes. Costs for all re-inspections of Work found defective and subsequently repaired shall not be included as Project Costs and shall be borne by the Contractor or as provided in the contract between Contractor and Subcontractor.
 - (3) <u>Contractor's Personnel</u>. The Contractor shall maintain sufficient off-site support staff and competent full-time staff at the Project Site authorized to act on behalf of the Contractor to coordinate, inspect, and provide general direction of the Work and progress of the Subcontractors. At all times during the performance of the Work, the Owner shall have the right to

demand replacement of Contractor Personnel to whom the Owner has reasonable objection, without liability to the Contractor.

(4) <u>Lines of Authority</u>. To provide general direction of the Work, the Contractor shall establish and maintain lines of authority for its personnel and shall provide this information to the Owner and all other affected parties, such as the code inspectors of any Permitting Authority, the Subcontractors, and the Architect/Engineer. The Owner and Architect/Engineer may attend meetings between the Contractor and his Subcontractors; however, such attendance is optional and shall not diminish either the authority or responsibility of the Contractor to administer the subcontracts.

AA. Quality Control. The Contractor shall develop and maintain a program, acceptable to the Owner and Architect/Engineer, to assure quality control of the construction. The Contractor shall be responsible for and supervise the Work of all Subcontractors, providing instructions to each when their Work does not conform to the requirements of the Project Plans and Specifications, and the Contractor shall continue to coordinate the Work of each Subcontractor to ensure that corrections are made in a timely manner so as to not affect the efficient progress of the Work. Should a disagreement occur between the Contractor and the Architect/Engineer over the acceptability of the Work, the Owner, at its sole discretion and in addition to any other remedies provided herein, shall have the right to determine the acceptability, provided that such determination is consistent with standards for construction projects of this type and generally accepted industry standards for workmanship in the State of Florida.

BB. Management of Subcontractors. All Subcontractors shall be compensated in accordance with Article IV. The Contractor shall solely control the Subcontractors. The Contractor shall negotiate all Change Orders and Field Orders with all affected Subcontractors and shall review the costs and advise the Owner and Architect/Engineer of their validity and reasonableness, acting in the Owner's best interest. When there is an imminent threat to health and safety, and Owner's Project Representative concurrence is impractical, the Contractor shall act immediately to remove the threats to health and safety and shall subsequently fully inform Owner of all such action taken. The Contractor shall also carefully review all shop drawings and then forward the same to the Architect/Engineer for review and actions. The Architect/Engineer will transmit them back to the Contractor, who will then issue the shop drawings to the affected Subcontractor for fabrication or revision. The Contractor shall maintain a suspense control system to promote expeditious handling. The Contractor shall request the Architect/Engineer to make interpretations of the drawings or specifications requested of him by the Subcontractors and shall maintain a business system to promote timely response. The Contractor shall inform the Architect/Engineer which shop drawings or requests for clarification have the greatest urgency, so as to enable the Architect/Engineer to prioritize requests coming from the Contractor. The Contractor shall advise the Owner and Architect/Engineer when timely response is not occurring on any of the above.

CC. Job Requirements.

- (1) The Contractor shall provide each of the following as a part of its services hereunder:
 - (a) Maintain a log of daily activities, including manpower records, equipment on site, weather, delays, major decisions, etc;
 - (b) Maintain a roster of companies on the Project with names and telephone numbers of key personnel;
 - (c) Establish and enforce job rules governing parking, clean-up, use of facilities, and worker discipline;
 - (d) Provide labor relations management and equal opportunity employment for a harmonious, productive Project;
 - (e) Provide and administer a safety program for the Project and monitor for subcontractor compliance without relieving them of responsibilities to perform Work in accordance with best acceptable practice;
 - (f) Provide a quality control program as provided under Section 2.4.C above;
 - (g) Provide miscellaneous office supplies that support the construction efforts which are consumed by its own forces;
 - (h) Provide for travel to and from its home office to the Project Site and to those other places within Manatee County as required by the Project;
 - (i) Verify that tests, equipment, and system start-ups and operating and maintenance instructions are conducted as required and in the presence of the required personnel and provide adequate records of same to the Architect/Engineer;
 - (j) Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original Contract Documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the Agreement, Owner/Architect/Engineer's clarifications and interpretations of the Contract Documents, progress reports, as-built drawings, and other project related documents;

- (k) Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures, and provide copies of same to Owner/Architect/Engineer;
- (l) Record names, addresses and telephone numbers of all Contractors, Subcontractors and major suppliers of materials and equipment;
- (m) Furnish Owner/Architect/Engineer periodic reports, as required, of progress of the Work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions;
- (n) Consult with Owner/Architect/Engineer in advance of scheduling major tests, inspections or start of important phases of the Work;
- (o) Verify, during the course of the Work, that certificates, maintenance and operations manuals and other data required to be assembled and furnished are applicable to the items actually installed, and deliver same to Owner/Architect/Engineer for review prior to final Acceptance of the Work; and
- (p) Cooperate with Owner in the administration of grants.
- (2) The Contractor shall provide personnel and equipment, or shall arrange for separate Subcontractors to provide each of the following as a Project Cost:
 - (a) Services of independent testing laboratories, and provide the necessary testing of materials to ensure conformance to contract requirements; and
 - (b) Printing and distribution of all required bidding documents and shop drawings, including the sets required by Permitting Authority inspectors.
- DD. <u>As-Built Drawings</u>. The Contractor shall continuously review as-built drawings and mark up progress prints to provide as much accuracy as possible. Prior to, and as a requirement for authorizing final payment to the Contractor due hereunder, the Contractor shall provide to the Owner an original set of marked-up, as-built Project Plans and Specifications and an electronic format of those records showing the location and dimensions of the Project as constructed, which documents shall be certified as being correct by the Contractor and the Architect/Engineer. Final as-built drawings shall be signed and sealed by a registered Florida surveyor.

- EE. <u>Progress Reports</u>. The Contractor shall forward to the Owner, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the Work under the Contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the Owner's review and approval. In addition, more detailed schedules may be required by the Owner for daily traffic control.
- FF. <u>Contractor's Warranty</u>. The Contractor warrants to the Owner and Architect/Engineer 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 will 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/Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
 - (1) Contractor shall use its best efforts and due diligence to ensure that during the warranty period, those entities or individuals who have provided direct warranties to the Owner as required by the Contract Documents perform all required warranty Work in a timely manner and at the sole cost and expense of such warranty providers. Any such cost or expense not paid by the warranty providers shall be paid by the Contractor, to include any costs and attorney's fees incurred in warranty-related litigation between Contractor and any Subcontractors.
 - (2) The Contractor shall secure guarantees and warranties of Subcontractors, equipment suppliers and materialmen, and assemble and deliver same to the Owner in a manner that will facilitate their maximum enforcement and assure their meaningful implementation. The Contractor shall collect and deliver to the Owner any specific written guaranties or warranties given by others as required by subcontracts.
 - (3) At the Owner's request, the Contractor shall conduct, jointly with the Owner and the Architect/Engineer, no more than two (2) warranty inspections within three (3) years after the Substantial Completion Date.
 - GG. <u>Apprentices</u>. If Contractor employs apprentices, their performance of Work shall be governed by and comply with the provisions of Chapter 446, Florida Statutes.
 - HH. <u>Schedule of Values</u>. Unit prices shall be established for this Contract by the submission of a schedule of values within ten (10) days of receipt of the Notice to Proceed. The schedule shall include quantities and prices of items equaling the Contract Sum and will subdivide the Work into components in sufficient detail to serve as the basis for progress payments during construction. Such prices shall include an appropriate amount of

overhead and profit applicable to each item of Work. Upon request of the County, the Contractor shall support the values with data which will substantiate their correctness.

II. Other Contracts. The Owner reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE III COMPENSATION

- **3.1 Compensation.** The Contract Sum constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract Sum.
- A. <u>Adjustments</u>. The Contract Sum may only be changed by Change Order or by a written amendment. Any claim for an increase or decrease in the Contract Sum shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within fifteen (15) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. Failure to deliver a claim within the requisite 15—day period shall constitute a waiver of the right to pursue said claim.
- B. <u>Valuation</u>. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Sum shall be determined in one of the following ways (at Owner's discretion):
 - (1) In the case of Unit Price Work, in accordance with Section 3.1.C, below; or
 - (2) By mutual acceptance of lump sum; or
 - (3) On the basis of the cost of the Work, plus a negotiated Contractor's fee for overhead and profit. Contractor shall submit an itemized cost breakdown together with supporting data.
- C. <u>Unit Price Work</u>. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment pursuant to a requested Change Order under the following conditions:
 - (1) If the total cost of a particular item of Unit Price Work amounts to 5% or more of the Contract Sum and the variation in the quantity of the particular item of Unit Price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and

- (2) If there is no corresponding adjustment with respect to any other item of Work; and
- (3) If Contractor believes that it has incurred additional expense as a result thereof; or
- (4) If Owner believes that the quantity variation entitles it to an adjustment in the unit price; or
- (5) If the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.
- **3.2 Schedule of Compensation.** All payments for services and material under the Contract Documents shall be made in accordance with the following provisions.
- A. <u>Periodic Payments for Services</u>. The Contractor shall be entitled to receive payment for Construction Services rendered pursuant to Section 2.4 in periodic payments which shall reflect a fair apportionment of cost and schedule of values of services furnished prior to payment, subject to the provisions of this Section.
- B. <u>Payment for Materials and Equipment</u>. In addition to the periodic payments authorized hereunder, payments may be made for material and equipment not incorporated in the Work but delivered and suitably stored at the Project Site, or another location, subject to prior approval and acceptance by the Owner on each occasion.
- C. <u>Credit toward Contract Sum.</u> All payments for Construction Services made hereunder shall be credited toward the payment of the Contract Sum as Contractor's sole compensation for the construction of the Project.
- **3.3 Invoice and Payment.** All payments for services and materials under the Contract Documents shall be invoiced and paid in accordance with the following provisions.
- A. <u>Invoices</u>. The Contractor shall submit to the Owner periodic invoices for payment, in a form acceptable to the Owner, which shall include a sworn statement certifying that, to the best of the Contractor's knowledge, information and belief, the construction has progressed to the point indicated, the quality and the Work covered by the invoice is in accord with the Project Plans and Specifications, and the Contractor is entitled to payment in the amount requested, along with the cost reports required pursuant to Article II, showing in detail all monies paid out, Project Costs accumulated, or Project Cost incurred during the previous period. This data shall be attached to the invoice.
- B. <u>Additional Information; Processing of Invoices</u>. Should an invoiced amount appear to exceed the Work effort believed to be completed, the Owner may, prior to processing of the invoice for payment, require the Contractor to submit satisfactory evidence to support the invoice. All progress reports and invoices shall be delivered to the attention of the Owner's Project Representative. Invoices not properly prepared (mathematical errors, billing not reflecting actual Work done, no signature, etc.) shall be returned to the Contractor for correction.

- C. <u>Architect/Engineer's Approval</u>. Payment for Work completed shall be subject to the Architect/Engineer approving the payment requested by the Contractor and certifying the amount thereof that has been properly incurred and is then due and payable to the Contractor, and identifying with specificity any amount that has not been properly incurred and that should not be paid.
- D. Warrants of Contractor with Respect to Payments. The Contractor warrants that (1) upon payment of any retainage, materials and equipment covered by a partial payment request will pass to Owner either by incorporation in construction or upon receipt of payment by the Contractor, whichever occurs first; (2) Work, materials and equipment covered by previous partial payment requests shall be free and clear of liens, claims, security interests, or encumbrances, hereinafter referred to as "liens"; and (3) no Work, materials or equipment covered by a partial payment request which has been acquired by the Contractor or any other person performing Work at the Project Site, or furnishing materials or equipment for the Project, shall be subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or any other person.
- E. <u>All Compensation Included</u>. Contractor's compensation includes full payment for services set forth in the Contract Documents, including but not limited to overhead, profit, salaries or other compensation of Contractor's officers, partners and/or employees, general operating expenses incurred by Contractor and relating to this Project, including the cost of management, supervision and data processing staff, job office equipment and supplies, and other similar items.

ARTICLE IV SUBCONTRACTORS

- **4.1 Subcontracts.** At the Owner's request, the Contractor shall provide Owner's Project Representative with copies of all proposed and final subcontracts, including the general and supplementary conditions thereof.
- A. <u>Subcontracts Generally</u>. All subcontracts shall: (1) require each Subcontractor to be bound to Contractor to the same extent Contractor is bound to Owner by the terms of the Contract Documents, as those terms may apply to the portion of the Work to be performed by the Subcontractor, (2) provide for the assignment of the subcontracts from Contractor to Owner at the election of Owner, upon termination of Contractor, (3) provide that Owner will be an additional indemnified party of the subcontract, (4) provide that Owner will be an additional insured on all insurance policies required to be provided by the Subcontractor, except workers' compensation, (5) assign all warranties directly to Owner, and (6) identify Owner as an intended third-party beneficiary of the subcontract.
- (1) A Subcontractor is a person or entity who has a direct contract with 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 subcontractors of a separate contractor.

- (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.
- B. <u>No Damages for Delay</u>. Except when otherwise expressly agreed to by Owner in writing, all subcontracts shall provide:

"LIMITATION OF REMEDIES – NO DAMAGES FOR DELAY. The Subcontractor's exclusive remedy for delays in the performance of the contract caused by events beyond its control, including delays claimed to be caused by the Owner or Architect/Engineer or attributable to the Owner or Architect/Engineer and including claims based on breach of contract or negligence, shall be an extension of its contract time and shall in no way involve any monetary claim."

Each subcontract shall require that any claims by the Subcontractor for delay must be submitted to the Contractor within the time and in the manner in which the Contractor must submit such claims to the Owner, and that failure to comply with the conditions for giving notice and submitting claims shall result in the waiver of such claims.

- C. <u>Subcontractual Relations</u>. The Contractor shall require each Subcontractor to assume all the obligations and responsibilities which the Contractor owes the Owner pursuant to the Contract Documents, by the parties to the extent of the Work to be performed by the Subcontractor. Said obligations shall be made in writing and shall preserve and protect the rights of the Owner and Architect/Engineer, with respect to the Work to be performed by the Subcontractor, so that the subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with its sub-subcontractor.
- D. <u>Insurance</u>; <u>Acts and Omissions</u>. Insurance requirements for Subcontractors shall be no more stringent than those requirements imposed on the Contractor by the Owner. The Contractor shall be responsible to the Owner for the acts and omissions of its employees, agents, Subcontractors, their agents and employees, and all other persons performing any of the Work or supplying materials under a contract to the Contractor.
- **4.2 Relationship and Responsibilities.** Except as specifically set forth herein with respect to direct materials acquisitions by Owner, nothing contained in the Contract Documents or in any Contract Document does or shall create any contractual relation between the Owner or Architect/Engineer and any Subcontractor. Specifically, the Contractor is not acting as an agent of the Owner with respect to any Subcontractor. The utilization of any Subcontractor shall not relieve Contractor from any liability or responsibility to Owner, or obligate Owner to the payment of any compensation to the Subcontractor or additional compensation to the Contractor.
- **4.3 Payments to Subcontractors; Monthly Statements.** The Contractor shall be responsible for paying all Subcontractors from the payments made by the Owner to Contractor pursuant to Article III, subject to the following provisions:

- A. Payment. The Contractor shall, no later than ten (10) days after receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, pay to each Subcontractor the amount to which the Subcontractor is entitled in accordance with the terms of the Contractor's contract with such Subcontractor. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to sub-Subcontractors in a similar manner. After receipt of payment from Owner, if the need should arise to withhold payments to Subcontractors for any reason, as solely determined by Contractor, the Contractor shall promptly restore such monies to the Owner, adjusting subsequent pay requests and Project bookkeeping as required.
- B. <u>Final Payment of Subcontractors</u>. The final payment of retainage to Subcontractors shall not be made until the Project has been inspected by the Architect/Engineer or other person designated by the Owner for that purpose, and until both the Architect/Engineer and the Contractor have issued a written certificate that the Project has been constructed in accordance with the Project Plans and Specifications and approved Change Orders. Before issuance of final payment to any Subcontractor without any retainage, the Subcontractor shall submit satisfactory evidence that all payrolls, material bills, and other indebtedness connected with the Project have been paid or otherwise satisfied, warranty information is complete, as-built markups have been submitted, and instruction for the Owner's operating and maintenance personnel is complete. Final payment may be made to certain select Subcontractors whose Work is satisfactorily completed prior to the completion of the Project, but only upon approval of the Owner's Project Representative.
- **4.4 Responsibility for Subcontractors.** As provided in Section 2.4.BB, Contractor shall be fully responsible to Owner for all acts and omissions of the Subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect Contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions.
- **4.5 Contingent Assignment of Subcontracts.** 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 Article XIV and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and
 - (2) assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Agreement.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract. Upon such assignment, if the Work has been suspended for more than thirty (30) days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension. Upon such assignment to the Owner, 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 V CHANGES IN WORK

- 5.1 General. Changes in the Work may be accomplished after execution of the Agreement, and without invalidating the Agreement, by Change Order, Work Directive Change or order for a minor change in the Work, subject to the limitations stated in this Article V and elsewhere in the Contract Documents. A Change Order shall be based upon agreement among the Owner, Contractor and Architect/Engineer; a Work Directive Change requires agreement by the Owner and Architect/Engineer 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/Engineer alone. Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Work Directive Change or order for a minor change in the Work.
- 5.2 Minor Changes in the Work. The Owner or Architect/Engineer shall have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such change will be effected by written order signed by the Architect/Engineer and shall be binding on the Owner and Contractor. The Contractor shall abide by and perform such minor changes. Such changes shall be effected by a Field Directive or a Work Directive Change. Documentation of changes shall be determined by the Construction Team, and displayed monthly in the Progress Reports. Because such changes shall not affect the Contract Sum to be paid to the Contractor, they shall not require a Change Order pursuant to Section 5.6.
- **5.3 Emergencies.** In any emergency affecting the safety of persons or property, the Contractor shall act at its discretion to prevent threatened damage, injury, or loss. Any increase in the Contract Sum or extension of time claimed by the Contractor on account of emergency Work shall be determined as provided in Section 5.6. However, whenever practicable, the Contractor shall obtain verbal concurrence of the Owner's Project Representative and Architect/Engineer where the act will or may affect the Contract Sum or Contract Time.
- 5.4 Concealed 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/Engineer before conditions are disturbed and in no event later than ten (10) days after first observance of the conditions. The Architect/Engineer will promptly investigate such conditions and, if the Architect/Engineer 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 an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect/Engineer 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/Engineer

shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Architect/Engineer's determination or recommendation, that party may proceed as provided in Article VIII.

5.5 **Hazardous Materials.** In the event the Contractor encounters on the Project Site material reasonably believed to be hazardous, petroleum or petroleum related products, or other hazardous or toxic substances, except as provided in Section 2.4.U, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and the Architect/Engineer in writing. The Work in the affected area shall not thereafter be resumed except by written amendment, if in fact the material or substance has not been rendered harmless. The Work in the affected area shall be resumed when the Project Site has been rendered harmless, in accordance with the final determination by the Architect/Engineer or other appropriate professional employed by Owner. The Contractor shall not be required to perform without its consent any Work relating to hazardous materials, petroleum or petroleum related products, or other hazardous or toxic substances. In the event the Contractor encounters on the Project Site materials believed in good faith to be hazardous or contaminated material, and the presence of such hazardous or contaminated material was not known and planned for at the time the Contractor submitted its Bid, and it is necessary for the Contractor to stop Work in the area affected and delays Work for more than a seven (7) day period, adjustments to the Contract Sum and/or Contract Time shall be made in accordance with this Article V.

5.6 Change Orders; Adjustments to Contract Sum.

- A. <u>Change Orders Generally</u>. The increase or decrease in the Contract Sum resulting from a change authorized pursuant to the Contract Documents shall be determined:
 - (1) By mutual acceptance of a lump sum amount properly itemized and supported by sufficient substantiating data, to permit evaluation by the Architect/Engineer and Owner; or
 - (2) By unit prices stated in the Agreement or subsequently agreed upon; or
 - (3) By any other method mutually agreeable to Owner and Contractor.

If Owner and Contractor are unable to agree upon increases or decreases in the Contract Sum and the Architect/Engineer certifies that the work needs to be commenced prior to any such agreement, the Contractor, provided it receives a written Change Order signed by or on behalf of the Owner, shall promptly proceed with the Work involved. The cost of such Work shall then be determined on the basis of the reasonable expenditures of those performing the Work attributed to the change. However, in the event a Change Order is issued under these conditions, the Owner, through the Architect/Engineer, will establish an estimated cost of the Work and the Contractor shall not perform any Work whose cost exceeds that estimated without prior written approval by the Owner. In such case, the Contractor shall keep and present in such form as the Owner may prescribe an itemized accounting, together with appropriate supporting data of the increase in overall costs of the Project. The amount of any decrease in the Contract Sum to be allowed by the Contractor to the Owner for any deletion or change which results in a net decrease in costs will be the amount of the actual net decrease.

- **5.7 Unit Prices.** If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices and Contract Sum shall be equitably adjusted.
- 5.8 Owner-Initiated Changes. Without invalidating the Agreement and without notice to any Surety, Owner may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a Field Directive, a Change Order, or a Work Directive Change, as the case may be. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). A Work Directive Change may not change the Contract Sum or the Contract Time; but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Sum or Contract Time.
- **5.9 Unauthorized Work.** Contractor shall not be entitled to an increase in the Contract Sum or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents.
- **5.10 Defective Work.** Owner and Contractor shall execute appropriate Change Orders (or written amendments) covering changes in the Work which are ordered by Owner, or which may be required because of acceptance of defective Work, without adjustment to the Contract Sum.
- 5.11 Estimates for Changes. At any time Architect/Engineer may request a quotation from Contractor for a proposed change in the Work. Within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the Contract Sum or Contract Time for the proposed change. Architect/Engineer shall have twenty one (21) calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Architect/Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.
- **5.12 Form of Proposed Changes.** The form of all submittals, notices, Change Orders and other documents permitted or required to be used or transmitted under the Contract Documents shall be determined by the Owner. Standard Owner forms shall be utilized.
- **5.13** Changes to Contract Time. The Contract Time may only be changed pursuant to a Change Order or a written amendment to the Contract Documents. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and

shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. The Contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by Owner or others performing additional Work; or to fires, floods, epidemics, abnormal weather conditions or acts of God. Failure to deliver a written notice of claim within the requisite 15-day period shall constitute a waiver of the right to pursue said claim.

ARTICLE VI ROLE OF ARCHITECT/ENGINEER

6.1 General.

- A. <u>Retaining</u>. The Owner shall retain an Architect/Engineer (whether an individual or an entity) lawfully licensed to practice in Florida. That person or entity is identified as the Architect/Engineer in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- B. <u>Duties</u>. Duties, responsibilities and limitations of authority of the Architect/Engineer as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner and Architect/Engineer. Consent shall not be unreasonably withheld.
- C. <u>Termination</u>. If the employment of the Architect/Engineer is terminated, the Owner shall employ a successor Architect/Engineer as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect/Engineer.
- **6.2 Administration.** The Architect/Engineer will provide administration of the Agreement as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect/Engineer approves the final Application for Payment. The Architect/Engineer will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.
- A. <u>Site Visits</u>. The Architect/Engineer 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 complete, 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. Unless specifically instructed by Owner, the Architect/Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect/Engineer 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.

- B. Reporting. On the basis of the site visits, the Architect/Engineer will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect/Engineer will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect/Engineer 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.
- **6.3 Interpretation of Project Plans and Specifications.** The Architect/Engineer will be the interpreter of the requirements of the Project Plans and Specifications. Upon receipt of comments or objections by Contractor or Owner, the Architect/Engineer will make decisions on all claims, disputes, or other matters pertaining to the interpretation of the Project Plans and Specifications.
- **6.4 Rejection of Non-Conforming Work.** Upon consultation with Owner, the Architect/Engineer shall have the authority to reject Work which does not conform to the Project Plans and Specifications.
- **6.5 Correction of Work.** The Contractor shall promptly correct all Work rejected by the Architect/Engineer for being defective or as failing to conform to the Project Plans and Specifications, whether observed before or after the Substantial Completion Date and whether or not fabricated, installed, or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for Architect/Engineer's additional services made necessary thereby.
- which requests for information or response from the Architect/Engineer have the greatest urgency and those items which require prioritizing in response by the Architect/Engineer. The Contractor shall also identify the preferred time period for response and shall request a response time which is reasonably and demonstrably related to the needs of the Project and Contractor. In the event that Architect/Engineer claims that Contractor's expectations for a response are unreasonable, Owner shall require Architect/Engineer to communicate such claim to Contractor in writing together with the specific time necessary to respond and the date upon which such response will be made. In the event that Contractor believes that Architect/Engineer is not providing timely services or responses, Contractor shall notify Owner of same in writing not less than two (2) weeks before Contractor believes performance or response time from Architect/Engineer is required without risk of delaying the Project.

ARTICLE VII OWNER'S RIGHTS AND RESPONSIBILITIES

- 7.1 Project Site; Title. The Owner shall provide the lands upon which the Work under the Contract Documents is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same. The Owner hereby represents to the Contractor that it currently has and will maintain up through and including the Substantial Completion Date, good title to all of the real property constituting the Project Site. Owner agrees to resolve, at its expense, any disputes relating to the ownership and use of the Project Site which might arise during the course of construction.
- 7.2 Project Plans and Specifications; Architect/Engineer. The parties hereto acknowledge and agree that Owner has previously entered into an agreement with Architect/Engineer. Pursuant to the terms of such agreement, the Architect/Engineer, as an agent and representative of Owner, is responsible for the preparation of Project Plans and Specifications which consist of drawings, specifications, and other documents setting forth in detail the requirements for the construction of the Project. All of such Project Plans and Specifications shall be provided either by Owner or the Architect/Engineer, and Contractor shall be under no obligation to provide same and shall be entitled to rely upon the accuracy and completeness of the Project Plans and Specifications provided by the Architect/Engineer and all preliminary drawings prepared in connection therewith. The Contractor will be furnished a reproducible set of all drawings and specifications reasonably necessary for the performance of Contractor's services hereunder and otherwise ready for printing. The Contractor shall be notified of any written modification in the agreement between Owner and Architect/Engineer.
- Surveys; Soil Tests and Other Project Site Information. Owner shall be responsible for providing a legal description and certified land survey of the Project Site in a form and content and with such specificity as may be required by the Architect/Engineer and Contractor to perform their services. To the extent deemed necessary by Owner and Architect/Engineer, and solely at Owner's expense, Owner may engage the services of a geotechnical consultant to perform test borings and other underground soils testing as may be deemed necessary by the Architect/Engineer or the Contractor. Contractor shall not be obligated to provide such surveys or soil tests and shall be entitled to rely upon the accuracy and completeness of the information provided; subject, however, to the provisions of Section 2.4.S hereof. Owner shall provide Contractor, as soon as reasonably possible following the execution of the Contract Documents, all surveys or other survey information in its possession describing the physical characteristics of the Project Site, together with soils reports, subsurface investigations, utility locations, deed restrictions, easements, and legal descriptions then in its possession or control. Upon receipt of all surveys, soils tests, and other Project Site information, Contractor shall promptly advise Owner of any inadequacies in such information and of the need for any additional surveys, soils or subsoil tests. In performing this Work, Contractor shall use the standard of care of experienced contractors and will use its best efforts timely to identify all problems or omissions. Owner shall not be responsible for any delay or damages to the Contractor for any visible or disclosed site conditions or disclosed deficiencies in the Project Site which should have been identified by Contractor and corrected by Owner prior to the execution of the Contract Documents.

- Communication; Coordination. Information; The Owner's Project Representative shall examine any documents or requests for information submitted by the Contractor and shall advise Contractor of Owner's decisions pertaining thereto within a reasonable period of time to avoid unreasonable delay in the progress of the Contractor's Contractor shall indicate if any such documents or requests warrant priority consideration. However, decisions pertaining to approval of the Project Schedule as it relates to the date of Substantial Completion, the Project Cost, Contractor's compensation, approving or changing the Contract Sum shall only be effective when approved by Owner in the form of a written Change Order or amendment to the Contract Documents. Owner reserves the right to designate a different Owner's Project Representative provided Contractor is notified in writing of any such change. Owner and Architect/Engineer may communicate with Subcontractors, materialmen, laborers, or suppliers engaged to perform services on the Project, but only for informational purposes. Neither the Owner nor the Architect/Engineer shall attempt to direct the Work of or otherwise interfere with any Subcontractor, materialman, laborer, or supplier, or otherwise interfere with the Work of the Contractor. Owner shall furnish the data required of Owner under the Contract Documents promptly.
- **7.5 Governmental Body.** The Contractor recognizes that the Owner is a governmental body with certain procedural requirements to be satisfied. The Contractor has and will make reasonable allowance in its performance of services for such additional time as may be required for approvals and decisions by the Owner and any other necessary government agency.
- **7.6 Pre-Completion Acceptance.** The Owner shall have the right to take possession of and use any completed portions of the Work, although the time for completing the entire Work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the Contract Documents.

7.7 Ownership and Use of Drawings, Specifications and Other Instruments of Service.

- (1) The Architect/Engineer and the Architect/Engineer's consultants shall be deemed the authors and owners of their respective instruments of service, including the Project Plans and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment 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 this Project is not to be constructed as publication in derogation of the Architect/Engineer's or Architect/Engineer's consultants' reserved rights.
- (2) The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the drawings and specifications provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Project Plans and Specifications or other instruments of service. The Contractor, Subcontractors, Subsubcontractors, and material or equipment suppliers may not use the

drawings or specifications on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect/Engineer and the Architect/Engineer's consultants.

- **7.8** Owner's Project Representative. Owner's Project Representative is Owner's Agent, who will act as directed by and under the supervision of the Owner, and who will confer with Owner/Architect/Engineer regarding his actions. The Owner's Project Representative's dealings in matters pertaining to the on-site Work shall, in general, be only with the Owner/Architect/Engineer and Contractor and dealings with Subcontractors shall only be through or with the full knowledge of Contractor.
- A. <u>Responsibilities</u>. Except as otherwise instructed in writing by Owner, the Owner's Project Representative will:
 - (1) Attend preconstruction conferences; arrange a schedule of progress meetings and other job conferences as required in consultation with Owner/Architect/Engineer and notify those expected to attend in advance; and attend meetings and maintain and circulate copies of minutes thereof;
 - (2) Serve as Owner/Architect/Engineer's liaison with Contractor, working principally through Contractor's superintendent, to assist in understanding the intent of the Contract Documents. As requested by Owner/Architect/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work;
 - (3) Report to Owner/Architect/Engineer whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents;
 - (4) Accompany visiting inspectors representing public or other agencies having jurisdiction over the project; record the outcome of these inspections and report to Owner/Architect/Engineer;
 - (5) Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to Owner/Architect/Engineer; and
 - (6) Perform those duties as set forth elsewhere within the Contract Documents.
- B. <u>Limitations</u>. Except upon written instructions of Owner, Owner's Project Representative shall not:
 - (1) Authorize any deviation from the Contract Documents or approve any substitute materials or equipment;

- (2) Exceed limitations on Owner/Architect/Engineer's authority as set forth in the Contract Documents:
- (3) Undertake any of the responsibilities of Contractor, Subcontractors or Contractor's superintendent, or expedite the Work;
- (4) Advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents;
- (5) Advise on or issue directions as to safety precautions and programs in connection with the Work;
- (6) Authorize Owner to occupy the project in whole or in part; or
- (7) Participate in specialized field or laboratory tests.

ARTICLE VIII RESOLUTION OF DISAGREEMENTS; CLAIMS FOR COMPENSATION

- **8.1 Owner to Decide Disputes.** The Owner shall reasonably decide all questions and disputes, of any nature whatsoever, that may arise in the execution and fulfillment of the services provided for under the Contract Documents, in accordance with the Procurement Ordinance.
- **8.2 Finality.** The decision of the Owner upon all claims, questions, disputes and conflicts shall be final and conclusive, and shall be binding upon all parties to the Contract Documents, subject to judicial review as provided in Section 8.5 below.
- **8.3 No Damages for Delay.** If at any time Contractor is delayed in the performance of Contractor's responsibilities under the Contract Documents as the result of a default or failure to perform in a timely manner by Owner or Owner's agents or employees, Contractor shall not be entitled to any damages except for compensation specifically authorized in Article III. Contractor's sole remedy will be a right to extend the time for performance. Nothing herein shall preclude Contractor from any available remedy against any responsible party other than Owner. Contractor shall be responsible for liquidated damages for delay pursuant to Section 3 of the Agreement.
- **8.4 Permitted Claims Procedure.** Where authorized or permitted under the Contract Documents, all claims for additional compensation by Contractor, extensions of time affecting the Substantial Completion Date, for payment by the Owner of costs, damages or losses due to casualty, Force Majeure, Project Site conditions or otherwise, shall be governed by the following:
 - (1) All claims must be submitted as a request for Change Order in the manner as provided in Article V.

- (2) The Contractor must submit a notice of claim to Owner's Project Representative and to the Architect/Engineer within fifteen (15) days of when the Contractor was or should have been aware of the fact that an occurrence was likely to cause delay or increased costs. Failure to submit a claim within the requisite 15-day period shall constitute a waiver of the right to pursue said claim.
- (3) Within twenty (20) days of submitting its notice of claim, the Contractor shall submit to the Owner's Project Representative its request for Change Order, which shall include a written statement of all details of the claim, including a description of the Work affected.
- (4) After receipt of a request for Change Order, the Owner's Project Representative, in consultation with the Architect/Engineer, shall deliver to the Contractor, within twenty (20) days after receipt of request, its written response to the claim.
- (5) In the event the Owner and Contractor are unable to agree on the terms of a Change Order, the Owner shall have the option to instruct the Contractor to proceed with the Work. In that event, the Owner shall agree to pay for those parts of the Work, the scope and price of which are not in dispute. The balance of the disputed items in the order to proceed will be resolved after completion of the Work, based upon completed actual cost.
- (6) The rendering of a decision by Owner with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by Owner or Contractor of such right or remedies as either may otherwise have under the Contract Documents or by laws or regulations in respect of any such claim, dispute or other matter.
- **8.5** Contract Claims and Disputes. After completion of the process set forth in Section 8.4 above, any unresolved dispute under this Agreement shall be decided by the Purchasing Official in accordance with Section 2-26-63 of the Manatee County Code of Laws, subject to an administrative hearing process as provided in Section 2-26-64. The decision of the Board of County Commissioners in accordance with Section 2-26-64 of the Manatee County Code of Laws shall be the final and conclusive County decision subject to exclusive judicial review in circuit court by a petition for certiorari.
- **8.6** 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

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 XIV. Nothing contained in this Section 8.6 shall be deemed to preclude an award of liquidated direct damages, when applicable, in accordance with the requirements of the Contract Documents.

ARTICLE IX INDEMNITY

9.1 Indemnity.

- Α. <u>Indemnification Generally</u>. To the fullest extent permitted by law, the shall indemnify and hold harmless Owner, the Architect/Engineer, Contractor Architect/Engineer's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorney's 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 or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether 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 which would otherwise exist as to a party or person described in this Section 9.1.
- B. <u>Claims by Employees</u>. In claims against any person or entity indemnified under this Section 9.1 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 9.1.A. 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.
- **9.2 Duty to Defend.** The Contractor shall defend the Owner in any action, lawsuit mediation or arbitration arising from the alleged negligence, recklessness or intentionally wrongful conduct of the Contractor and other persons employed or utilized by the Contractor in the performance of the Work. So long as Contractor, through its own counsel, performs its obligation to defend the Owner pursuant to this Section, Contractor shall not be required to pay the Owner's costs associated with the Owner's participation in the defense.

ARTICLE X ACCOUNTING RECORDS; OWNERSHIP OF DOCUMENTS

- **10.1 Accounting Records.** Records of expenses pertaining to all services performed shall be kept in accordance with generally accepted accounting principles and procedures.
- **Inspection and Audit.** The Contractor's records shall be open to inspection and subject to examination, audit, and/or reproduction during normal working hours by the Owner's agent or authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the Contractor or any of its payees during the performance of the Work. These records shall include, but not be limited to, accounting records, written policies and procedures, Subcontractor files (including proposals of unsuccessful bidders), and original estimates, estimating correspondence, Change Order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to the Contract Documents. They shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with the Contract Documents. For the purpose of such audits, inspections, examinations and evaluations, the Owner's agent or authorized representative shall have access to said records from the effective date of the Contract Documents, for the duration of Work, and until three (3) years after the date of final payment by the Owner to the Contractor pursuant to the Contract Documents.
- 10.3 Access. The Owner's agent or authorized representative shall have access to the Contractor's facilities and all necessary records in order to conduct audits in compliance with this Article. The Owner's agent or authorized representative shall give the Contractor reasonable advance notice of intended inspections, examinations, and/or audits.
- **10.4 Ownership of Documents.** Upon completion or termination of the Contract Documents, all records, documents, tracings, plans, specifications, maps, evaluations, reports, transcripts and other technical data, other than working papers, prepared or developed by the Contractor under the Contract Documents shall be delivered to and become the property of the Owner. The Contractor at its own expense may retain copies for its files and internal use.

ARTICLE XI PUBLIC CONTRACT LAWS

11.1 Equal Opportunity Employment.

A. <u>Employment</u>. The Contractor shall not discriminate against any employee or applicant for employment because of race, creed, sex, color, national origin, disability or age, and will take affirmative action to insure that all employees and applicants are afforded equal

employment opportunities without discrimination because of race, creed, sex, color, national origin, disability or age. Such action will be taken with reference to, but shall not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of training or retraining, including apprenticeship and on-the-job training.

- B. <u>Participation</u>. No person shall, on the grounds of race, creed, sex, color, national origin, disability or age, be excluded from participation in, be denied the proceeds of, or be subject to discrimination in the performance of the Agreement.
- 11.2 Immigration Reform and Control Act of 1986. Contractor acknowledges that it is responsible for complying with the provisions of the Immigration Reform and Control Act of 1986, located at 8 U.S.C. Section 1324, et seq., and regulations relating thereto. Failure to comply with the above statutory provisions shall be considered a material breach and shall be grounds for immediate termination of this Agreement.
- 11.3 No Conflict of Interest. The Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Contractor to solicit or secure the Contract Documents, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm other than a bona fide employee working solely for the Contractor, any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of the Contract Documents.
- A. <u>No Interest in Business Activity</u>. By accepting award of this Contract, the Contractor, which shall include its directors, officers and employees, represents that it presently has no interest in and shall acquire no interest in any business or activity which would conflict in any manner with the performance of services required hereunder, including without limitation as described in the Contractor's own professional ethical requirements. An interest in a business or activity which shall be deemed a conflict includes but is not limited to direct financial interest in any of the material and equipment manufacturers, suppliers, distributors, or contractors who will be eligible to supply material and equipment for the Project for which the Contractor is furnishing its services required hereunder.
- B. <u>No Appearance of Conflict</u>. The Contractor shall not knowingly engage in any contractual or professional obligations that create an appearance of a conflict of interest with respect to the services provided pursuant to the Contract Documents. The Contractor has provided the Affidavit of No Conflict, incorporated into the Contract Documents as Exhibit "C", as a material inducement for Owner entering into the Contract Documents. If, in the sole discretion of the County Administrator or designee, a conflict of interest is deemed to exist or arise during the term of the County Administrator or designee may cancel this Agreement, effective upon the date so stated in a written notice of cancellation, without penalty to the Owner.
- 11.4 Truth in Negotiations. By execution of the Contract Documents, the Contractor certifies to truth-in-negotiations and that wage rates and other factual unit costs supporting the compensation are accurate, complete and current at the time of contracting. Further, the original Contract Sum and any additions thereto shall be adjusted to exclude any significant sums where the Owner determines the Contract Sum was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. Such adjustments must be made within one (1) year after final payment to the Contractor.

11.5 Public Entity Crimes. The Contractor is directed to the Florida Public Entity Crimes Act, Section 287.133, Florida Statutes, specifically section 2(a), and the Owner's requirement that the Contractor comply with it in all respects prior to and during the term of the Agreement.

ARTICLE XII FORCE MAJEURE, FIRE OR OTHER CASUALTY

12.1 Force Majeure.

- A. <u>Unavoidable Delays</u>. Delays in any performance by any party contemplated or required hereunder due to fire, flood, sinkhole, earthquake or hurricane, acts of God, unavailability of materials, equipment or fuel, war, declaration of hostilities, revolt, civil strife, altercation or commotion, strike, labor dispute, or epidemic, archaeological excavation, lack of or failure of transportation facilities, or any law, order, proclamation, regulation, or ordinance of any government or any subdivision thereof, or for any other similar cause to those enumerated, beyond the reasonable control and which with due diligence could not have been reasonably anticipated, shall be deemed to be events of Force Majeure and any such delays shall be excused. In the event such party is delayed in the performance of any Work or obligation pursuant to the Contract Documents for any of the events of Force Majeure stated in this Section 12.1, the date for performance required or contemplated by the Contract Documents shall be extended by the number of calendar days such party is actually delayed
- B. <u>Concurrent Contractor Delays</u>. If a delay is caused for any reason provided in 12.1.A. or as a result of an extension of time provided by Change Order, and during the same time period a delay is caused by Contractor, the date for performance shall be extended as provided in 12.1.A. but only to the extent the time is or was concurrent.
- C. <u>Notice</u>; <u>Mitigation</u>. The party seeking excuse for nonperformance on the basis of Force Majeure shall give written notice to the Owner, if with respect to the Contractor, or to the Contractor if with respect to the Owner, specifying it's actual or anticipated duration. Each party seeking excuse from nonperformance on the basis of Force Majeure shall use its best efforts to rectify any condition causing a delay and will cooperate with the other party, except that neither party shall be obligated to incur any unreasonable additional costs and expenses to overcome any loss of time that has resulted.
- 12.2 Casualty; Actions by Owner and Contractor. During the construction period, if the Project or any part thereof shall have been damaged or destroyed, in whole or in part, the Contractor shall promptly make proof of loss; and Owner and Contractor shall proceed promptly to collect, or cause to be collected, all valid claims which may have arisen against insurers or others based upon such damage or destruction. The Contractor shall diligently assess the damages or destruction and shall prepare an estimate of the cost, expenses, and other charges, including normal and ordinary compensation to the Contractor, necessary for reconstruction of the Project substantially in accordance with the Project Plans and Specifications. Within fifteen (15) days following satisfaction of the express conditions described in subsections (1), (2) and (3) below, the Contractor covenants and agrees diligently to commence reconstruction and to

complete the reconstruction or repair of any loss or damage by fire or other casualty to the Project to substantially the same size, floor area, cubic content, and general appearance as prior to such loss or damage:

- (1) Receipt by the Owner or the trustee of the proceeds derived from collection of all valid claims against insurers or others based upon such damage or destruction, and receipt of other sums from any source such that the funds necessary to pay the Project Cost and any additions to the Project Cost necessitated for repair or reconstruction are available;
- Written agreement executed by the Contractor and the Owner, by amendment to the Contract Documents or otherwise, authorizing and approving the repair or reconstruction and any additions to the Project Cost necessitated thereby, including any required adjustment to the Contract Sum; and
- (3) Final approval by the Owner of the Project Plans and Specifications for such repair or reconstruction and issuance of any required building permit.
- 12.3 Approval of Plans and Specifications. The Owner agrees to approve the plans and specifications for such reconstruction or repair if the reconstruction or repair contemplated by such plans and specifications is economically feasible, and will restore the Project, or the damaged portion thereof, to substantially the same condition as prior to such loss or damage, and such plans and specifications conform to the applicable laws, ordinances, codes, and regulations. The Owner agrees that all proceeds of any applicable insurance or other proceeds received by the Owner or the Contractor as a result of such loss or damage shall be used for payment of the costs, expenses, and other charges of the reconstruction or repair of the Project.
- 12.4 Notice of Loss or Damage. The Contractor shall promptly give the Owner written notice of any significant damage or destruction to the Project, defined as loss or damage which it is contemplated by Contractor will increase the Contract Sum or extend the Substantial Completion Date, stating the date on which such damage or destruction occurred, the then expectations of Contractor as to the effect of such damage or destruction on the use of the Project, and the then proposed schedule, if any, for repair or reconstruction of the Project. Loss or damage which the Contractor determines will not affect the Contract Sum or Substantial Completion Date will be reported to Owner and Architect/Engineer immediately, and associated corrective actions will be undertaken without delay.

ARTICLE XIII REPRESENTATIONS, WARRANTIES AND COVENANTS

13.1 Representations and Warranties of Contractor. The Contractor represents and warrants to the Owner that each of the following statements is presently true and accurate:

- A. The Contractor is a construction company, organized under the laws of the State of ______, authorized to transact business in the State of Florida, with ______ as the primary qualifying agent. Contractor has all requisite power and authority to carry on its business as now conducted, to own or hold its properties, and to enter into and perform its obligations hereunder and under each instrument to which it is or will be a party, and is in good standing in the State of Florida.
- B. Each Contract Document to which the Contractor is or will be a party constitutes, or when entered into will constitute, a legal, valid, and binding obligation of the Contractor enforceable against the Contractor in accordance with the terms thereof, except as such enforceability may be limited by applicable bankruptcy, insolvency, or similar laws from time to time in effect which affect creditors' rights generally and subject to usual equitable principles in the event that equitable remedies are involved.
- C. There are no pending or, to the knowledge of the Contractor, threatened actions or proceedings before any court or administrative agency, within or without the State of Florida, against the Contractor or any partner, officer, or agent of the Contractor which question the validity of any document contemplated hereunder, or which are likely in any case, or in the aggregate, to materially adversely affect the consummation of the transactions contemplated hereunder, or materially adversely affect the financial condition of the Contractor.
- D. The Contractor has filed or caused to be filed all federal, state, local, or foreign tax returns, if any, which were required to be filed by the Contractor, and has paid, or caused to be paid, all taxes shown to be due and payable on such returns or on any assessments levied against the Contractor.
- E. Neither Contractor nor any agent or person employed or retained by Contractor has acted fraudulently or in bad faith or in violation of any statute or law in the procurement of this Agreement.
- F. The Contractor shall timely fulfill or cause to be fulfilled all of the terms and conditions expressed herein which are within the control of the Contractor or which are the responsibility of the Contractor to fulfill. The Contractor shall be solely responsible for the means and methods of construction.
- G. It is recognized that neither the Architect/Engineer, the Contractor, nor the Owner has control over the cost of labor, materials, or equipment, over a Subcontractor's methods of determining bid prices, or over competitive bidding, market, or negotiating conditions.
- H. During the term of the Contract Documents, and the period of time that the obligations of the Contractor under the Contract Documents shall be in effect, the Contractor shall cause to occur and to continue to be in effect those instruments, documents, certificates, and events contemplated by the Contract Documents that are applicable to, and the responsibility of, the Contractor.
- I. The Contractor shall assist and cooperate with the Owner and shall accomplish the construction of the Project in accordance with the Contract Documents and the

Project Plans and Specifications, and will not knowingly violate any laws, ordinances, rules, regulations, or orders that are or will be applicable thereto.

- J. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective, and that Owner, representatives of Owner, governmental agencies with jurisdictional interests will have access to the Work at reasonable time for their observation, inspecting and testing. Contractor shall give Architect/Engineer timely notice of readiness of the Work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by Owner.
- K. If any Work (including Work of others) that is to be inspected, tested, or approved is covered without written concurrence of Architect/Engineer, it must, if requested by Architect/Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Architect/Engineer timely notice of Contractor's intention to cover the same and Architect/Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Architect/Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.
- L. If the Work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective Work, including, but not limited to fees and charges of Architect/Engineers, architects, attorneys and other professionals and any additional expenses experienced by Owner due to delays to other Contractors performing additional Work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the Contract time and the recovery of delay damages due to correcting or removing defective Work.
- M. If Contractor fails within seven (7) days after written notice to correct defective Work, or fails to perform the Work in accordance with the Contract Documents, or fails to comply with any other provision of the Contract Documents, Owner may correct and remedy any such deficiency to the extent necessary to complete corrective and remedial action. Owner may exclude Contractor from all or part of the site, take possession of all or part of the Work, Contractor's tools, construction equipment and machinery at the site or for which Owner has paid Contractor but which are stored elsewhere. All direct and indirect costs of Owner in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Architect/Engineer and a Change Order will be issued incorporating the necessary revisions.
- N. If within three (3) years after the Substantial Completion Date or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's

written instructions, either correct such defective Work or if it has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instruction, Owner may have the defective Work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor. Failing payment by the Contractor and notwithstanding any other provisions of the Contract Documents to the contrary, Owner shall have the right to bring a direct action in the Circuit Court to recover such costs.

- **13.2** Representations of the Owner. To the extent permitted by law, the Owner represents to the Contractor that each of the following statements is presently true and accurate:
- A. The Owner is a validly existing political subdivision of the State of Florida.
- B. The Owner has all requisite corporate or governmental power and authority to carry on its business as now conducted and to perform its obligations under the Contract Documents and each Contract Document contemplated hereunder to which it is or will be a party.
- C. The Contract Documents and each Contract Document contemplated hereby to which the Owner is or will be a party has been duly authorized by all necessary action on the part of, and has been or will be duly executed and delivered by, the Owner, and neither the execution and delivery thereof nor compliance with the terms and provisions thereof or hereof: (a) requires the approval and consent of any other person or party, except such as have been duly obtained or as are specifically noted herein; (b) contravenes any existing law, judgment, governmental rule, regulation or order applicable to or binding on the Owner; or (c) contravenes or results in any breach of, default under, or result in the creation of any lien or encumbrance upon the Owner under any indenture, mortgage, deed of trust, bank loan, or credit agreement, the charter, ordinances, resolutions, or any other agreement or instrument to which the Owner is a party, specifically including any covenants of any bonds, notes, or other forms of indebtedness of the Owner outstanding on the date of the Contract Documents.
- D. The Contract Documents and each document contemplated hereby to which the Owner is or will be a party constitutes, or when entered into will constitute, a legal, valid, and binding obligation of the Owner enforceable against the Owner in accordance with the terms thereof, except as such enforceability may be limited by applicable bankruptcy, insolvency, or similar laws from time to time in effect which affect creditors' rights generally, and subject to usual equitable principles in the event that equitable remedies are involved.
- E. There are no pending or, to the knowledge of the Owner, threatened actions or proceedings before any court or administrative agency against the Owner which question the validity of the Contract Documents or any document contemplated hereunder, or which are likely in any case or in the aggregate to materially adversely affect the consummation of the transactions contemplated hereunder or the financial or corporate condition of the Owner.
- F. The Owner shall use due diligence to timely fulfill or cause to be fulfilled all of the conditions expressed in the Contract Documents which are within the control of the Owner or which are the responsibility of the Owner to fulfill.

- G. During the pendency of the Work and while the obligations of the Owner under the Contract Documents shall be in effect, the Owner shall cause to occur and to continue to be in effect and take such action as may be necessary to enforce those instruments, documents, certificates and events contemplated by the Contract Documents that are applicable to and the responsibility of the Owner.
- H. The Owner shall assist and cooperate with the Contractor in accomplishing the construction of the Project in accordance with the Contract Documents and the Project Plans and Specifications, and will not knowingly violate any laws, ordinances, rules, regulations, orders, contracts, or agreements that are or will be applicable thereto or, to the extent permitted by law, enact or adopt any resolution, rule, regulation, or order, or approve or enter into any contract or agreement, including issuing any bonds, notes, or other forms of indebtedness, that will result in the Contract Documents or any part thereof, or any other instrument contemplated by and material to the timely and effective performance of a party's obligations hereunder, to be in violation thereof.

ARTICLE XIV TERMINATION AND SUSPENSION

- **14.1 Termination for Cause by Owner.** This Agreement may be terminated by Owner upon written notice to the Contractor should Contractor fail substantially to perform a material obligation in accordance with the terms of the Contract Documents through no fault of the Owner. In the event Owner terminates for cause and it is later determined by a court of competent jurisdiction that such termination for cause was not justified, then in such event such termination for cause shall automatically be converted to a termination without cause pursuant to Section 14.2.
- Nonperformance. If the Contractor fails to timely perform any of his A. obligations under the Contract Documents, including any obligation the Contractor assumes to perform Work with his own forces, or if it persistently or repeatedly refuses or fails, except in case for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or fails, without being excused, to maintain an established schedule (failure to maintain schedule shall be defined as any activity that falls thirty (30) days or more behind schedule) which has been adopted by the Construction Team, or it fails to make prompt payment to Subcontractors for materials or labor, or disregards laws, rules, ordinances, regulations, or orders of any public authority having jurisdiction, or otherwise is guilty of substantial violations of the Agreement the Owner may, after seven (7) days written notice, during which period the Contractor fails to perform such obligation, make good such deficiencies and perform such actions. The Contract Sum, or the actual Cost of the Project, whichever is less, shall be reduced by the cost to the Owner of making good such deficiencies, and the Contractor's compensation shall be reduced by an amount required to manage the making good of such deficiencies. Provided, however, nothing contained herein shall limit or preclude Owner from pursuing additional damages from Contractor as a result of its breach.
- B. <u>Insolvency</u>. If the Contractor is adjudged bankrupt, or if it makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its

insolvency, then the Owner may, without prejudice to any other right or remedy, and after giving the Contractor and its surety, if any, fourteen (14) days written notice, and during which period the Contractor fails to cure the violation, terminate the Agreement. In such case, the Contractor shall not be entitled to receive any further payment. Owner shall be entitled to recover all costs and damages arising as a result of failure of Contractor to perform as provided in the Contract Documents, as well as reasonable termination expenses, and costs and damages incurred by the Owner may be deducted from any payments left owing the Contractor.

- C. <u>Illegality</u>. Owner may terminate the Agreement if Contractor disregards laws or regulations of any public body having jurisdiction.
- D. The Owner may, after giving Contractor (and the Rights of Owner. Surety, if there is one) seven (7) days written notice, terminate the services of Contractor for cause; exclude Contractor from the Project site and take possession of the Work and of all Contractor's tools, construction equipment and machinery at the Project site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the Work all materials and equipment stored at the Project site or for which Owner has paid Contractor but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the Work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the Work exceed the unpaid balance of the Contract Sum, Contractor shall pay the difference to Owner. Such costs incurred by Owner shall be verified by Owner in writing; but in finishing the Work, Owner shall not be required to obtain the lowest quote for the Work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement. In such event and notwithstanding any other provisions of the Contract Documents to the contrary, Owner shall be entitled to bring a direct action in the Circuit Court to recover such costs.
- 14.2 Termination without Cause by Owner. The Owner, through its County Administrator or designee, shall have the right to terminate the Agreement, in whole or in part, without cause upon sixty (60) calendar days written notice to the Contractor. In the event of such termination for convenience, the Owner shall compensate Contractor for payments due through the date of termination, and one subsequent payment to cover costs of Work performed through the date of termination, subject to the terms and conditions of Section 3.1. The Contractor shall not be entitled to any other further recovery against the Owner, including, but not limited to, anticipated fees or profit on Work not required to be performed, or consequential damages or costs resulting from such termination.
- A. <u>Release of Contractor</u>. As a condition of Owner's termination rights provided for in this subsection, Contractor shall be released and discharged from all obligations arising by, through, or under the terms of the Contract Documents, and the Payment and Performance Bond shall be released. Owner shall assume and become responsible for the reasonable value of Work performed by Subcontractors prior to termination plus reasonable direct close-out costs, but in no event shall Subcontractors be entitled to unabsorbed overhead, anticipatory profits, or damages for early termination.

- B. <u>Waiver of Protest</u>. Contractor hereby waives any right to protest the exercise by Owner of its rights under this Section that may apply under the Procurement Ordinance.
- 14.3 Suspension without Cause. Owner may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which Work will be resumed. Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, directly attributable to any suspension if Contractor makes an approved claim therefor.
- 14.4 Termination Based Upon Abandonment, Casualty or Force Majeure. If, after the construction commencement date (i) Contractor abandons the Project (which for purposes of this paragraph shall mean the cessation of all construction and other activities relating to the Project, excluding those which are necessary to wind down or otherwise terminate all outstanding obligations with respect to the Project, and no recommencement of same within one hundred twenty (120) days following the date of cessation), or (ii) the Project is stopped for a period of thirty (30) consecutive days due to an instance of Force Majeure or the result of a casualty resulting in a loss that cannot be corrected or restored within one hundred twenty (120) days (excluding the time required to assess the damage and complete the steps contemplated under Section 12.2), the Owner shall have the right to terminate the Agreement and pay the Contractor its compensation earned or accrued to date.
- 14.5 Vacation of Project Site; Delivery of Documents. Upon termination by Owner pursuant to Section 14.2 or 14.4, Contractor shall withdraw its employees and its equipment, if any, from the Project Site on the effective date of the termination as specified in the notice of termination (which effective date shall not be less than two (2) working days after the date of delivery of the notice), regardless of any claim the Contractor may or may not have against the Owner. Upon termination, the Contractor shall deliver to the Owner all original papers, records, documents, drawings, models and other material set forth and described in the Contract Documents.
- 14.6 Termination by the Contractor. If, through no act or fault of Contractor, the Work is suspended for a period of more than ninety (90) consecutive days by Owner or under an order of court or other public authority, or Owner fails to act on any Application for Payment or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon fourteen (14) days written notice to Owner terminate the Agreement and recover from Owner payment for all Work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Owner has failed to act on any Application for Payment or Owner has failed to make any payment as aforesaid, Contractor may upon fourteen (14) days written notice to Owner stop the Work until payment of all amounts then due.

Exhibit A <u>Title(s) of Drawings</u>

Exhibit B Title(s) of Specifications

Exhibit C Affidavit of No Conflict

Exhibit D Contractor's Certificate(s) of Insurance

Exhibit E Contractor's Payment and Performance Bond

Exhibit F Standard Forms

Construction Document Specifications

for

MANATEE COUNTY SUPERVISOR OF ELECTIONS PHASES 2 and 3

600 301 Boulevard West, Suite 108, Bradenton, FL 34205

Prepared By:
Fawley Bryant Architects, Inc.
5391 Lakewood Ranch Blvd. N.
Suite 300
Sarasota, Florida 34240
Phone (941) 343-4070

September 29, 2014

DIVISION 01 - GENERAL REQUIREMENTS

011000	SUMMARY
012000	MEASUREMENT AND PAYMENT
012500	SUBSTITUTION PROCEDURES
012600	CONTRACT MODIFICATION PROCEDURES
012900	PAYMENT PROCEDURES
013100	PROJECT MANAGEMENT AND COORDINATION
013200	CONSTRUCTION PROGRESS DOCUMENTATION
013300	SUBMITTAL PROCEDURES
014000	QUALITY REQUIREMENTS
014200	REFERENCES
015000	TEMPORARY FACILITIES AND CONTROLS
016000	PRODUCT REQUIREMENTS
017300	EXECUTION
017419	CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
017700	CLOSEOUT PROCEDURES
017823	OPERATION AND MAINTENANCE DATA
017839	PROJECT RECORD DOCUMENTS
017900	DEMONSTRATION AND TRAINING

DIVISION 03 - CONCRETE

030580 UNDER-SLAB VAPOR BARRIER

DIVISION 04 - MASONRY

N/A

DIVISION 05 - METALS

N/A

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

061053	MISCELLANEOUS ROUGH CARPENTRY
064023	INTERIOR ARCHITECTURAL WOODWORK
064100	ARCHITECTURAL CASEWORK

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

072100 THERMAL INSULATION

DIVISION 08 - OPENINGS

081416	WOOD FLUSH DOORS
087111	DOOR HARDWARE

DIVISION 09 - FINISHES

092216 NON-STRUCTURAL METAL FRAMING

Manatee County Supervisor of Elections Renovation (WA #2013019.06) Bradenton, Florida

092400 PORTLAND CEMENT PLASTERING

092900 GYPSUM BOARD

093000 TILING

099123 INTERIOR PAINTING

DIVISION 10 - SPECIALTIES

101400 SIGNAGE

102113 PLASTIC TOILET COMPARTMENTS

102800 TOILET, BATH, AND LAUNDRY ACCESSORIES

DIVISION 11 - EQUIPMENT

N/A

DIVISION 12 – FURNISHINGS

N/A

SEE MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR ADDITIONAL SPECIFICATIONS

END OF TABLE OF CONTENTS

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes:

- 1. Project information.
- 2. Work covered by Contract Documents.
- 3. Phased construction.
- 4. Work by Owner.
- 5. Owner-furnished products.
- 6. Access to site.
- 7. Coordination with occupants.
- 8. Work restrictions.
- 9. Specification and drawing conventions.

B. Related Section:

1. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Supervisor of Elections Phases 2 and 3
 - 1. Project Location: 600 301 Boulevard West, Suite 108, Bradenton, FL 34205.
- B. Owner: Manatee County Government
 - 1. Owner's Representative: Angela Honts, Project Manager
- C. Architect: Fawley Bryant Architects, Inc. 5391 Lakewood Ranch Blvd. N., Suite 300, Sarasota, Florida, 34240

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Project is defined by the Contract Documents and consists of, but is not limited to, the following:
 - 1. Interior renovation of an approximately 21,000sf facility to be completed in three phases, one phase by Manatee County Government and the other two subsequent by the selected contractor. Work shall include demolition and renovation of the interior and includes the addition of exterior

openings for windows and overhead doors while some exterior openings are being filled in. The existing facility must be in continuous operation, thus the phasing of the construction is such that the workers will have space to operate and the public has continuous access to the facility. However due to the nature of the facility, there will be special security considerations as requested by the Supervisor of Elections.

B. Type of Contract

1. Phase 1 of the project shall be completed by Manatee County Government. Phases 2 and 3 of the project will be constructed under a single prime contract.

1.5 WORK BY OWNER

A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.6 ACCESS TO SITE

A. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 6 p.m., Monday through Friday, except as otherwise indicated.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than 7 days in advance of proposed utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner not less than 7 days in advance of proposed utility interruptions.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on the Project site. Require personnel to utilize identification tags at all times.

- H. Employee Screening: Comply with Owner's requirements regarding background screening of Contractor personnel working on the Project site.
 - 1. Maintain list of approved screened personnel with Owner's Representative.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

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SECTION 012000 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SCOPE

- A. The scope of this section of the Contract Specifications is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all required work, identified or not, required, including but not limited to shop drawings, working drawings, labor, materials, tools, equipment, incidentals and mobilization necessary to complete the requirements of this project, as shown on the Drawings and/or as specified in the Contract Specifications to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work required to render a complete product, specified to be performed under this Contract.

1.2 EXPLANATION AND DEFINITIONS

A. The following explanation of the Measurement and Payment for the Bid Schedule items is made for information and guidance. The omission of reference to any item in this description shall not, however, alter the intent of the Bid Schedule or relieve the CONTRACTOR of the necessity of furnishing such as a part of the Contract. Measurement and payment for all Contract Items shall made be in accordance with this section or as modified by the Supplemental Terms and Conditions.

1.3 MEASUREMENT

The quantities set forth in the Bid Schedule are approximate and are given to establish a uniform basis for the comparison of bids. The COUNTY reserves the right to increase or decrease the quantity of any class or portion of the work during the progress of construction in accord with the terms of the Contract.

1.4 PAYMENT

- A. Make payment for the items listed on the Bid Schedule on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, clean up, restoration of disturbed areas, and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications.
- B. Unit prices are used as a means of computing the final figures for bid and Contract purposes, for periodic payments for work performed, for determining value of additions or deletions and wherever else reasonable.

C. Lump sum items

1. Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall

be complete, tested and fully operable prior to request for final payment. Contractor shall be required to provide a break-down of the lump sum totals in their schedule of values.

D. Unit price items

- 1. Separate payment will be made for the items of work described herein and listed on the Bid Form as a unit price item. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.
- 2. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the County until as-built (record) drawings have been submitted and approved by the County.
 - a. Shop Drawings, Working Drawings
 - b. Cleanup and miscellaneous work
 - c. Testing and placing systems in operation
 - d. Any material and equipment required to be installed and utilized for the tests
 - e. Maintaining the existing quality of service during construction
 - f. Maintaining or detouring of traffic
 - g. Appurtenant work as required for a complete and operable system
 - h. As-built record drawings

1.5 SCHEDULE OF VALUES

- A. Approval of Schedule: Submit for approval a schedule of values, in duplicate, for all of the Work. Prepare schedule of values as based on the County provided schedule of values, and submit within 10 calendar days after the Effective Date of the Agreement. Submit final schedule of values in accordance with the Terms and Conditions of the Agreement.
- B. Format: Utilize a format similar to the Table of Contents of the Project Specifications. Identify each line item with number and title of the major specification items. Identify site mobilization, bonds and insurance. Include within each line item, a direct proportional amount of Contractor's overhead profit.
- C. Contractor to use County provided pay application form only for payment submission. All other forms shall be rejected.
- D. Revisions: With each application for Payment, revise schedule to list approved Change Orders.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 MEASURMENT AND PAYMENT (BID FORM ITEMS)

A. Make payment on the basis of work actually performed completing each item in the Bid, such work including, but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, cleanup, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications. Payment for each item includes compensation for cleanup and restorations. Cost of cleanup and surface restorations will be considered as the percentage retained in accordance with the Contract Documents, and complete payment will not be made until cleanup, restorations and as-builts are completed.

1.01 Mobilization: Measurement and payment for the Mobilization Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project, and any permits not already obtained by the County. This may include those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, safety equipment and first aid supplies, and sanitary and other facilities/utilities. The mobilization pay item also includes demobilization of all equipment, personnel, supplies and incidentals from the project site upon final completion. Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%). The basis of payment for all work associated with Mobilization shall be paid for under the Lump Sum Pay Item and in accordance with the following schedule:

Percent of the Total Contract Amount Earned	Allowable Percent of the Lump Sum Price for Mobilization
5	25
10	50
25	75
100	100

- 2. <u>1.02 Demolition</u>: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, the removal of specified items in and around the site. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, M3.2, M3.3, P2.2, P2.3.
- 3. 2.01 Existing Asphalt Repair: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering the existing drive back to full service. Provide and install all repairs as required by the new construction as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheet A1.1. Before final payment is completed the drive work shall be inspected and accepted by the Architect and Manatee County Property Management.
- 4. 3.01 Exterior Openings Windows: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install new opening structure as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, S0.0.1, S3.3.1, S4.1.1 and S4.2.1. Before final payment is completed the work shall be inspected and accepted by the Architect, Structural Engineer and Manatee County Property Management.
- 5. 3.02 Exterior Openings Man Doors: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install new opening structure as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.3.1, S0.0.1, S3.3.1, S4.1.1 and S4.2.1. Before final payment is completed the work shall be inspected and accepted by the Architect, Structural Engineer and Manatee County Property Management.
- 6. 3.03 Exterior Openings Truck Doors: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install new opening structure as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.3.1, S0.0.1, S3.3.1, S4.1.1 and S4.2.1. Before final payment is completed the work shall be inspected and accepted by the Architect, Structural Engineer and Manatee County Property Management.

- 7. 3.04 Existing Slab Repair: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install repairs to the existing slab as required for installation of new plumbing and electrical. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on the Mechanical and Electrical Plans. Before final payment is completed the work shall be inspected and accepted by the Architect, Structural Engineer and Manatee County Property Management.
- 8. 3.04 Interior Masonry Openings: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and finished product. Provide and install interior masonry openings and required structure as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.3.1 and the structural sheets. Contractor shall provide a breakdown of all scope and material for review along with the bid package. Before final payment is completed the work shall be inspected and accepted by the Architect, Structural Engineer and Manatee County Property Management.
- 9. <u>5.01 Interior Metal Framing:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and finished product. Provide and install interior metal framing as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. All work covered for this Item is included in the Architectural drawings as well as the specifications on Sheet S0.0.1. Contractor shall provide a breakdown of all scope and material for review along with the bid package. Before final payment is completed the framing work shall be inspected and accepted by the Architect and Manatee County Property Management.
- 10. <u>5.02 Miscellaneous Structural Steel:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and finished product. Provide and install all structural steel as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. All work covered for this Item is included on the structural drawings. Before final payment is completed the drive work shall be inspected and accepted by the Architect, Structural Engineer, and Manatee County Property Management.
- 11. <u>6.01 Reception Desk:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and finished product. Provide and install reception desk casework as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included on Sheets A3.3.1, A9.3, and Specification Section 064100. Before final payment is completed the work shall be inspected and accepted by the Architect and Manatee County Property Management.
- 12. <u>6.02 Cabinetry Base Cabinets:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and finished product. Provide and install cabinetry as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.3.1, 3.3.2, A9.1, A9.2, A9.3 and Specification Section 064100. Before final payment is completed the work shall be inspected and accepted by the Architect and Manatee County Property Management.
- 13. <u>6.03 Cabinetry Upper Cabinets:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install cabinetry as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.3.1, 3.3.2, A9.1, A9.2, A9.3 and Specification Section 064100. Before final payment is completed the work shall be inspected and accepted by the Architect and Manatee County Property Management.

- 14. <u>6.03 Countertops 24" P. Lam:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install countertops as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.3.1, 3.3.2, A9.1, A9.2, A9.3 and Specification Section 064100. Before final payment is completed the work shall be inspected and accepted by the Architect and Manatee County Property Management.
- 15. <u>8.01 Overhead Coiling Doors:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Overhead Coiling Doors as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.3.1 and A8.1 and related specification sections. Before final payment is completed the Overhead Coiling Doors shall be inspected and accepted by the Architect and Manatee County Property Management.
- 16. <u>8.02 Wood Doors, Frames, and Hardware:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Wood Doors, Door Frames, and Hardware as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, A8.1 and related specification sections. Before final payment is completed the Wood Doors, Door Frames and Hardware shall be inspected and accepted by the Architect and Manatee County Property Management.
- 17. <u>8.03 HM Doors, Frames, and Hardware:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Hollow Metal Doors, Door Frames, and Hardware as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, A8.1 and related specification sections. Before final payment is completed the Hollow Metal Doors, Door Frames and Hardware shall be inspected and accepted by the Architect and Manatee County Property Management.
- 18. <u>8.04 Interior Glazing (Doors):</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Interior Glazing (doors) as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, A8.1 and related specification sections. Before final payment is completed the Interior Glazing shall be inspected and accepted by the Architect and Manatee County Property Management.
- 19. <u>8.05 Exterior Storefront:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Exterior Storefront as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.2.1, A8.1 and related specification sections. Before final payment is completed the Exterior Storefront shall be inspected and accepted by the Architect and Manatee County Property Management.
- 20. <u>8.06 Access Control:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Access Controls as shown on the plans or as required by Manatee County Property Management. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, A8.1 and related specification sections. Before final payment is completed the Interior Glazing shall be inspected and accepted by the Architect and Manatee County Property Management.

- 21. <u>9.01 Gypsum Assemblies:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all drywall and framing as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included in Sheets A3.2.1, A3.3.1, A7.0, A8.1 and A8.2. Before final payment is completed the Framing and Drywall shall be inspected and accepted by the Architect and Manatee County Property Management.
- 22. <u>9.02 Drywall and Framing Patch and Texture:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Patch and repair/ retexture all affected drywall and framing as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included in Sheets A3.2.1 and A3.3.1. Before final payment is completed the Framing and Drywall shall be inspected and accepted by the Architect and Manatee County Property Management.
- 23. <u>9.03 Carpet:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all carpet as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the carpet shall be inspected and accepted by the Architect and Manatee County Property Management.
- 24. <u>9.04 Porcelain Floor Tile:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Porcelain Floor Tile as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the Porcelain Floor Tile shall be inspected and accepted by the Architect and Manatee County Property Management.
- 25. <u>9.05 Porcelain Tile Base:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Porcelain Tile Base as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the Porcelain Tile Base shall be inspected and accepted by the Architect and Manatee County Property Management.
- 26. 9.06 Vinyl Floor Tile: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Porcelain Floor Tile as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the Vinyl Floor Tile shall be inspected and accepted by the Architect and Manatee County Property Management.
- 27. 9.07 Vinyl Base: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all Vinyl Base as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed

- the Vinyl Base shall be inspected and accepted by the Architect and Manatee County Property Management.
- 28. <u>9.08 Sealed Concrete:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide concrete sealer as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the concrete sealer shall be inspected and accepted by the Architect and Manatee County Property Management.
- 29. 9.09 24" Wide Soffit: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all 24" wide soffits as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the 24" wide soffits shall be inspected and accepted by the Architect and Manatee County Property Management.
- 30. 9.10 12" Wide Soffit: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all 12" wide soffits as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the 12" wide soffits shall be inspected and accepted by the Architect and Manatee County Property Management.
- 31. <u>9.11 Gyp. Bd. Headers:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all gyp. bd. headers as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the gyp. bd. headers shall be inspected and accepted by the Architect and Manatee County Property Management.
- 32. <u>9.12 Acoustical Ceilings and Grid:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all acoustical ceilings, grid and tiles as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included in Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the Acoustical Ceilings shall be inspected and accepted by the Architect and Manatee County Property Management.
- 33. <u>9.13 Painted and Textured Gyp. Bd. Ceilings:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all paints and coatings as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheet A3.1. Before final payment is completed the painted areas and touch up paint shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 34. <u>9.14 Open Structure:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Finish all open structure ceilings as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed

- the open structure ceiling areas and touch up paint shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 35. <u>9.15 Interior Painting and Coatings:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all interior painting and coatings as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package, All work covered for this Item is included on Sheets A3.2.1, A3.2.2, A3.3.1, A3.3.2, and A3.4.1 and related specification sections. Before final payment is completed the interior painting and coatings as well as any touch up paint shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 36. 9.16 Porcelain Wall Tile: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all porcelain wall tile as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A3.4.1, A9.1, A9.2 and A9.3 and related specification sections. Before final payment is completed the porcelain wall tile shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 37. 9.17 Exterior Painting: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all exterior paints and coatings as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package, All work covered for this Item is included in the architectural plans and related specification sections. Before final payment is completed the painted areas and touch up paint shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 38. <u>9.18 Exterior Finish Patch and Repair:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all exterior patch and repair as required by the new construction. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package, All work covered for this Item is included in the construction plans and related specification sections. Before final payment is completed the painted areas and touch up paint shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 39. <u>9.19 Stucco over new structure:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all stucco over new structure as required by the new construction. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package, All work covered for this Item is included in the construction plans and related specification sections. Before final payment is completed the stucco shall be completed, inspected and accepted by the Architect and Manatee County Property Management.
- 40. <u>9.20 Exterior Foam Trim:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all exterior foam trim as required by the new construction. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on Sheets A5.1, A8.2 and related specification sections. Before final payment is completed the exterior foam trim shall be completed, inspected and accepted by the Architect and Manatee County Property Management.

- 41. 10.01 Fire Extinguisher in Cabinet: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all cabinet mounted fire extinguishers as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on Sheets A2.0 and related specification sections. Before final payment is completed the cabinets and extinguishers shall be inspected and accepted by the Architect, Manatee County Property Management, and the Cedar Hammock Fire Marshall.
- 42. <u>10.02 Toilet Partitions:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all toilet partitions as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included on sheets A3.2.1, A3.3.1, A9.1 and A9.2. Before final payment is completed the toilet partitions shall be inspected and accepted by the Architect and Manatee County Property Management.
- 43. 10.03 Toilet Accessories: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all toilet accessories as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included on sheets A3.2.1, A3.3.1, A9.1 and A9.2. Before final payment is completed the toilet accessories shall be inspected and accepted by the Architect and Manatee County Property Management.
- 44. 10.02 ADA Signage: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all code required ADA signage as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package, All work covered for this Item is per Florida Building Code requirements. Before final payment is completed the signage shall be inspected and accepted by the Architect and Manatee County Property Management.
- 45. <u>10.03 Specialty Signage:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install all specialty signage as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum bid for the work required. Contractor shall provide a breakdown of all scope and material for review along with the bid package. All work covered for this Item is included on Sheet A9.3. Before final payment is completed the signage shall be inspected and accepted by the Architect and Manatee County Property Management.
- 46. <u>15.01 Fire Sprinkler System Renovation:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Renovate the existing wet pipe sprinkler system as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Fire Protection Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the sprinkler system shall be inspected and accepted by the Architect, Manatee County Property Management, and the Cedar Hammock Fire Marshall.
- 47. <u>15.02 HVAC New Ducting:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the ducting as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the unit price bid for the work required. All work covered for this Item is included on the Mechanical and Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed

- the HVAC New ducting shall be inspected and accepted by the Architect and Manatee County Property Management.
- 48. <u>15.03 Plumbing:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install plumbing fixtures, piping, and fittings as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Plumbing Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed all plumbing shall be inspected and accepted by the Architect and Manatee County Property Management.
- 49. <u>16.01 Electrical Wiring:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the electrical wiring, pathways, and conduits as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the electrical wiring, pathways and conduits shall be inspected and accepted by the Architect and Manatee County Property Management.
- 50. 16.02 Electrical Lighting: Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the data wiring, pathways, conduits and trim as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the lighting (both new and reused existing fixtures) shall be inspected and accepted by the Architect and Manatee County Property Management.
- 51. <u>16.03 Electrical Switchgear:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the electrical switchgear and related components as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the switchgear and related components shall be inspected and accepted by the Architect and Manatee County Property Management.
- 52. <u>16.05 Electrical Low Voltage (wiring, pathways, trim):</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the low voltage, wiring, pathways and trim as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the low voltage, pathways and trim shall be inspected and accepted by the Architect and Manatee County Property Management.
- 53. <u>16.06 Electrical Fire Alarm:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the fire alarm as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Fire Protection Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the fire alarm shall be inspected and accepted by the Architect, Manatee County Property Management, and the Cedar Hammock Fire Marshall.

54. <u>16.07 Electrical - Data:</u> Measurement and payment for this Bid Item shall include full compensation for all required work included to complete this portion of this project, rendering a complete and operable system. Provide and install the data wiring, pathways, conduits and trim as shown on the plans. Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the work required. All work covered for this Item is included on the Electrical Sheets. Contractor to provide a separate schedule of values for the individual components of this system along with their payment requests. Before final payment is completed the data wiring, pathways, conduits and trim shall be inspected and accepted by the Architect and Manatee County Property Management.

END OF SECTION 012000

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SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Sections:

- 1. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
- 2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use CSI Form 13.1A or form approved by Owner and Architect.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect,

- sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- e. Samples, where applicable or requested.
- f. Certificates and qualification data, where applicable or requested.
- g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
- h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- i. Research reports evidencing compliance with building code in effect for Project, from 2010 Florida Building Code.
- j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Cost information, including a proposal of change, if any, in the Contract Sum.
- Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
- m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

- 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
 - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.
 - j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

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SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections:

1. Division 01 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use CSI Form 13.6B "Proposal Worksheet Summary" and 13.6C "Proposal Worksheet Detail" or forms acceptable to Architect.

- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use form acceptable to Architect.

1.5 ADMINISTRATIVE CHANGE ORDERS

A. Allowance Adjustment: Refer to Division 01 Section "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

1.6 CHANGE ORDER PROCEDURES

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

1.7 CONSTRUCTION CHANGE DIRECTIVE

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections:

- 1. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
- 2. Division 01 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
- 3. Division 01 Section "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 DEFINITIONS

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

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Cost-loaded Critical Path Method Schedule may serve to satisfy requirements for the schedule of values.
 - 1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:

- a. Project name and location.
- b. Name of Architect.
- c. Architect's project number.
- d. Contractor's name and address.
- e. Date of submittal.
- 2. Arrange schedule of values consistent with format of AIA Document G703.
- 3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
- 4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of Contract Sum.
- 5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
- 6. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
- 7. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- 8. Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
- 9. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-inplace may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
- 10. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Progress payments shall be submitted to Architect by the 25th of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
 - 1. Submit draft copy of Application for Payment seven days prior to due date for review by Architect.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
 - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 - 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 3. Provide summary documentation for stored materials indicating the following:
 - a. Materials previously stored and included in previous Applications for Payment.
 - b. Work completed for this Application utilizing previously stored materials.
 - c. Additional materials stored with this Application.
 - d. Total materials remaining stored, including materials with this Application.
- F. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

- 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
- 2. When an application shows completion of an item, submit conditional final or full waivers.
- 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
- 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
- 5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Submittal schedule (preliminary if not final).
 - 5. List of Contractor's staff assignments.
 - 6. List of Contractor's principal consultants.
 - 7. Copies of building permits.
 - 8. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 9. Initial progress report.
 - 10. Certificates of insurance and insurance policies.
 - 11. Performance and payment bonds.
 - 12. Data needed to acquire Owner's insurance.
- I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - 5. AIA Document G707, "Consent of Surety to Final Payment."
 - 6. Evidence that claims have been settled.
 - 7. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Administrative and supervisory personnel.
 - 3. Coordination drawings.
 - 4. Requests for Information (RFIs).
 - 5. Project meetings.

B. Related Sections:

- 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
- 2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
- 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.4 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

- Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Progress meetings.
 - 4. Preinstallation conferences.
 - 5. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings in accordance with requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - e. Indicate required installation sequences.
 - f. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
 - 1. Plenum Space: Indicate sub-framing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.

- 2. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
- 3. Fire Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
- 4. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Architect determines that the coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Architect will so inform the Contractor, who shall make changes as directed and resubmit.
- 5. Coordination Drawing Prints: Prepare coordination drawing prints in accordance with requirements of Division 01 Section "Submittal Procedures."
- C. Coordination Digital Data Files: Prepare coordination digital data files in accordance with the following requirements:
 - 1. File Preparation Format: Same digital data software program, version, and operating system as the original Drawings.
 - 2. File Preparation Format: DWG, Version AutoCad 2004 or Revit 2012, operating in Microsoft Windows operating system.
 - 3. File Submittal Format: Submit or post coordination drawing files using format same as file preparation format and Portable Data File (PDF) format.
 - 4. Architect will furnish Contractor one set of digital data files of the Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to the Drawings.
 - Digital Data Software Program: The Drawings are available in DWG, Version AutoCad 2004 or Revit 2012.
 - c. Contractor shall execute a data licensing agreement in the form of AIA Document C106.

1.6 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
 - 1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. Project number.
 - 3. Date.
 - 4. Name of Contractor.
 - 5. Name of Architect.
 - 6. RFI number, numbered sequentially.
 - 7. RFI subject.
 - 8. Specification Section number and title and related paragraphs, as appropriate.
 - 9. Drawing number and detail references, as appropriate.
 - 10. Field dimensions and conditions, as appropriate.
 - 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 12. Contractor's signature.
 - 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
 - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log at project meetings. Software log with not less than the following:
 - 1. Project name.

- 2. Name and address of Contractor.
- 3. Name and address of Architect.
- 4. RFI number including RFIs that were dropped and not submitted.
- 5. RFI description.
- 6. Date the RFI was submitted.
- 7. Date Architect's response was received.
- 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.8 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within five days of the meeting.
- B. Preinstallation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
 - 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect[, and Owner's Commissioning Authority,] of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility problems.
 - k. Time schedules.
 - 1. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.

- w. Required performance results.
- x. Protection of adjacent work.
- y. Protection of construction and personnel.
- 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- C. Progress Meetings: Conduct progress meetings at weekly regular intervals.
 - 1. Coordinate dates of meetings with preparation of payment requests.
 - 2. Attendees: In addition to representatives of Owner[, Owner's Commissioning Authority] and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.
 - 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of proposal requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.
 - 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

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SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Start-up construction schedule.
 - 2. Contractor's construction schedule.
 - 3. Daily construction reports.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.

B. Related Sections:

- 1. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
- 2. Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. PDF electronic file.
 - 2. Two paper copies.
- B. Start-up construction schedule.
 - Approval of cost-loaded start-up construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.

- 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
- 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
- 3. Total Float Report: List of all activities sorted in ascending order of total float.
- 4. Earnings Report: Compilation of Contractor's total earnings from commencement of the Work the Notice to Proceed until most recent Application for Payment.
- E. Daily Construction Reports: Submit at monthly intervals.
- F. Material Location Reports: Submit at monthly intervals.
- G. Field Condition Reports: Submit at time of discovery of differing conditions.
- H. Special Reports: Submit at time of unusual event.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 - 4. Startup and Testing Time: Include not less than 15 days for startup and testing.

- 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 3. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 4. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 5. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Use of premises restrictions.
 - 6. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Submittals.
 - b. Purchases.
 - c. Mockups.
 - d. Fabrication.
 - e. Deliveries.
 - f. Installation.
 - g. Tests and inspections.
 - h. Adjusting.
 - i. Startup and placement into final use and operation.
 - 7. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.
 - b. Permanent space enclosure.
 - c. Completion of mechanical installation.
 - d. Completion of electrical installation.
 - e. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
 - 1. Refer to Division 01 Section "Payment Procedures" for cost reporting and payment procedures.

- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 - 1. Unresolved issues.
 - 2. Unanswered RFIs.
 - 3. Rejected or unreturned submittals.
 - 4. Notations on returned submittals.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
 - 1. Utilize Microsoft Project, for Windows XP or Windows Vista operating system.

2.2 START-UP CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit start-up horizontal bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within 30 days of date established for the Notice to Proceed. Base schedule on the start-up construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. Approximate count of personnel at Project site.
 - 3. Equipment at Project site.
 - 4. Material deliveries.
 - 5. Accidents.
 - 6. Meetings and significant decisions.

- 7. Unusual events (refer to special reports).
- 8. Stoppages, delays, shortages, and losses.
- 9. Emergency procedures.
- 10. Orders and requests of authorities having jurisdiction.
- 11. Change Orders received and implemented.
- 12. Construction Work Change Directives received and implemented.
- 13. Services connected and disconnected.
- 14. Equipment or system tests and startups.
- 15. Partial completions and occupancies.
- 16. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.

2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

- 1. Division 01 Section "Payment Procedures" for submitting Applications for Payment and the schedule of values.
- 2. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
- 3. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
- 4. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
- 5. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and Construction Manager and additional time for handling and reviewing submittals required by those corrections.
 - Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - Submit revised submittal schedule to reflect changes in current status and timing for submittals.
 - 4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action, informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's and Construction Manager's final release or approval.
 - g. Scheduled dates for purchasing.
 - h. Scheduled dates for installation.
 - i. Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: **Limited** electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect will furnish Contractor limited digital data drawing files upon request of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Digital Drawing Software Program: The Contract Drawings are available in AutoCad export from Revit.
 - c. Contractor shall execute a data licensing agreement in the form of AIA Document C106, Digital Data Licensing Agreement.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.

- 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 5. Do not combine submittals from different specification sections. Submittal packages that contain items from multiple specification sections will be returned without review.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
 - 4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
 - 5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
- D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 - 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of subcontractor.
 - g. Name of supplier.
 - h. Name of manufacturer.
 - i. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - 1. Location(s) where product is to be installed, as appropriate.
 - m. Other necessary identification.
- E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

- Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
- 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
- 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
- 4. Include the following information on an inserted cover sheet:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Name of subcontractor.
 - h. Name of supplier.
 - i. Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - 1. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Other necessary identification.
- 5. Include the following information as keywords in the electronic file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- F. Options: Identify options requiring selection by the Architect.
- G. Deviations: Identify deviations from the Contract Documents on submittals.
- H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 - Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
- I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect and Construction Manager will return submittals, without review, or discard submittals received from sources other than Contractor.
 - 1. Transmittal Form: Use AIA Document G810 or transmittal form approved by the Architect.
 - 2. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.

- c. Destination (To:).
- d. Source (From:).
- e. Names of subcontractor, manufacturer, and supplier.
- f. Category and type of submittal.
- g. Submittal purpose and description.
- h. Specification Section number and title.
- i. Indication of full or partial submittal.
- j. Drawing number and detail references, as appropriate.
- k. Transmittal number, numbered consecutively.
- 1. Submittal and transmittal distribution record.
- m. Remarks.
- n. Signature of transmitter.
- 3. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Email electronic submittals as PDF electronic files directly to Architect's representative's email address.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - 2. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - 3. Action Submittals: Submit four paper copies of each submittal, unless otherwise indicated. Architect will retain one copy.
 - 4. Informational Submittals: Submit six paper copies of each submittal, unless otherwise indicated. Architect will not return copies.

- Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
- 6. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
 - Provide a notarized statement on original paper copy certificates and certifications where indicated.
- 7. Test and Inspection Reports Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before or concurrent with Samples.
 - 6. Submit Product Data in the following format:
 - 7. Six paper copies of Product Data, unless otherwise indicated. Architect will retain one copy.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based upon Architect's digital data drawing files is otherwise permitted.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.

- e. Notation of dimensions established by field measurement.
- f. Relationship and attachment to adjoining construction clearly indicated.
- g. Seal and signature of professional engineer if specified.
- 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
- 3. Submit Shop Drawings in the following format:
 - Six opaque copies of each submittal. Architect will retain two copies; remainder will be returned.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 - 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit three full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 - 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain one Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project record sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.

- 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - 1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
 - 2. Manufacturer and product name, and model number if applicable.
 - 3. Number and name of room or space.
 - 4. Location within room or space.
 - 5. Submit product schedule in the following format:
 - a. Three paper copies of product schedule or list, unless otherwise indicated. Architect will return two copies.
- F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- G. Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H. Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
 - 4. Submit subcontract list in the following format:
 - a. PDF electronic file.
 - b. Number of Copies: Three paper copies of subcontractor list, unless otherwise indicated. Architect will return two copies.
- J. LEED Submittals: Comply with requirements specified in Division 01 Section "Sustainable Design Requirements."
 - 1. Submit LEED submittals in the following format:
 - a. PDF electronic file.
 - b. Three paper copies of LEED submittals, unless otherwise indicated.
- K. Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and

- Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- U. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."
- V. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- W. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- X. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- Y. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."

Z. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect and Construction Manager will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action on advice of counsel, select appropriate terms for action stamp and insert term and explanation of each action taken in subparagraph below. See Evaluations.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect and Construction Manager.
- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.
- I. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: For mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems.

- 1. Seismic-force resisting system, designated seismic system, or component listed in the designated seismic system quality assurance plan prepared by the Architect.
- 2. Main wind-force resisting system or a wind-resisting component listed in the wind-force-resisting system quality assurance plan prepared by the Architect.
- C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
 - 1. Project quality-control manager may also serve as Project superintendent.
 - 2.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: Include in quality-control plan a comprehensive schedule of Work requiring testing or inspection, including the following:
 - 1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
 - 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 - 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.

- 2. Project title and number.
- 3. Name, address, and telephone number of testing agency.
- 4. Dates and locations of samples and tests or inspections.
- 5. Names of individuals making tests and inspections.
- 6. Description of the Work and test and inspection method.
- 7. Identification of product and Specification Section.
- 8. Complete test or inspection data.
- 9. Test and inspection results and an interpretation of test results.
- 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
- 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- 12. Name and signature of laboratory inspector.
- 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
 - 1. Name, address, and telephone number of technical representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - 3. Statement that products at Project site comply with requirements.
 - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 6. Statement whether conditions, products, and installation will affect warranty.
 - 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
 - 1. Name, address, and telephone number of factory-authorized service representative making report.
 - 2. Statement that equipment complies with requirements.
 - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 4. Statement whether conditions, products, and installation will affect warranty.
 - 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.9 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 or the Florida Building Code; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 - 2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 - 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
 - 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 - Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 7. Demolish and remove mockups when directed, unless otherwise indicated.

1.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
 - 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 3. Notify testing agencies at least per their notification requirements in advance of time when Work that requires testing or inspecting will be performed.
 - 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

- 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
- 6. Do not perform any duties of Contractor.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.11 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Conducted by a qualified testing agency or special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 - 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.

- 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

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

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": 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.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

PRIVATE tbl1			
AA	Aluminum Association, Inc. (The) www.aluminum.org	(703) 358-2960	
AAADM	American Association of Automatic Door Manufacturers www.aaadm.com	(216) 241-7333	
AABC	Associated Air Balance Council www.aabchq.com	(202) 737-0202	
AAMA	American Architectural Manufacturers Association www.aamanet.org	(847) 303-5664	
ABAA	Air Barrier Association of America www.airbarrier.org	(866) 956-5888	
ACI	American Concrete Institute www.concrete.org	(248) 848-3700	
AF&PA	American Forest & Paper Association www.afandpa.org	(800) 878-8878 (202) 463-2700	
AGC	Associated General Contractors of America (The) www.agc.org	(703) 548-3118	
АНА	American Hardboard Association (Now part of CPA)		
AIA	American Institute of Architects (The) www.aia.org	(800) 242-3837 (202) 626-7300	
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400	
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100	
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org	(301) 972-1700	
AMCA	Air Movement and Control Association International, Inc. www.amca.org	(847) 394-0150	

ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
APA	APA - The Engineered Wood Association www.apawood.org	(253) 565-6600
APA EWS	APA - The Engineered Wood Association; Engineered Wood Systems (See APA - The Engineered Wood Association)	
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers	(800) 527-4723
	www.ashrae.org	(404) 636-8400
ASME	ASME International (American Society of Mechanical Engineers International) www.asme.org	(800) 843-2763 (973) 882-1170
ASSE	American Society of Sanitary Engineering www.asse-plumbing.org	(440) 835-3040
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9500
AWCI	Association of the Wall and Ceiling Industry www.awci.org	(703) 534-8300
AWI	Architectural Woodwork Institute www.awinet.org	(571) 323-3636
AWPA	American Wood Protection Association (Formerly: American Wood Preservers' Association) www.awpa.com	(205) 733-4077
ВНМА	Builders Hardware Manufacturers Association www.buildershardware.com	(212) 297-2122
BICSI	BICSI, Inc. www.bicsi.org	(800) 242-7405 (813) 979-1991
CEA	Consumer Electronics Association www.ce.org	(866) 858-1555 (703) 907-7600
CFFA	Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com	(216) 241-7333
CISCA	Ceilings & Interior Systems Construction Association www.cisca.org	(630) 584-1919
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	(847) 517-1200
CSA	CSA International (Formerly: IAS - International Approval Services) www.csa-international.org	(866) 797-4272 (416) 747-4000

CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
DHI	Door and Hardware Institute www.dhi.org	(703) 222-2010
EJMA	Expansion Joint Manufacturers Association, Inc. www.ejma.org	(914) 332-0040
ETL SEMCO	Intertek ETL SEMCO (Formerly: ITS - Intertek Testing Service NA) www.intertek.com	(800) 967-5352
FM Approvals	FM Approvals LLC www.fmglobal.com	(781) 762-4300
FM Global	FM Global (Formerly: FMG - FM Global) www.fmglobal.com	(401) 275-3000
FMRC	Factory Mutual Research (Now FM Global)	
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. www.floridaroof.com	(407) 671-3772
FSA	Fluid Sealing Association www.fluidsealing.com	(610) 971-4850
FSC	Forest Stewardship Council www.fsc.org	49 228 367 66 0
GA	Gypsum Association www.gypsum.org	(202) 289-5440
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)	
HPVA	Hardwood Plywood & Veneer Association www.hpva.org	(703) 435-2900
HPW	H. P. White Laboratory, Inc. www.hpwhite.com	(410) 838-6550
IAS	International Approval Services (Now CSA International)	
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org	(212) 419-7900
IESNA	Illuminating Engineering Society of North America www.iesna.org	(212) 248-5000

IEST	Institute of Environmental Sciences and Technology www.iest.org	(847) 255-1561
ISO	International Organization for Standardization www.iso.ch	41 22 749 01 11
	Available from ANSI www.ansi.org	(202) 293-8020
ITS	Intertek Testing Service NA (Now ETL SEMCO)	
KCMA	Kitchen Cabinet Manufacturers Association www.kcma.org	(703) 264-1690
LMA	Laminating Materials Association (Now part of CPA)	
MFMA	Metal Framing Manufacturers Association, Inc. www.metalframingmfg.org	(312) 644-6610
МН	Material Handling (Now MHIA)	
MHIA	Material Handling Industry of America www.mhia.org	(800) 345-1815 (704) 676-1190
MPI	Master Painters Institute www.paintinfo.com	(888) 674-8937 (604) 298-7578
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	(630) 942-6591
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(800) 797-6623 (281) 228-6200
NADCA	National Air Duct Cleaners Association www.nadca.com	(202) 737-2926
NAIMA	North American Insulation Manufacturers Association www.naima.org	(703) 684-0084
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NEBB	National Environmental Balancing Bureau www.nebb.org	(301) 977-3698
NECA	National Electrical Contractors Association www.necanet.org	(301) 657-3110

NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association www.nema.org	(703) 841-3200
NETA	InterNational Electrical Testing Association www.netaworld.org	(888) 300-6382 (269) 488-6382
NFHS	National Federation of State High School Associations www.nfhs.org	(317) 972-6900
NHLA	National Hardwood Lumber Association www.natlhardwood.org	(800) 933-0318 (901) 377-1818
NLGA	National Lumber Grades Authority www.nlga.org	(604) 524-2393
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400
NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010
OPL	Omega Point Laboratories, Inc. (Now ITS)	
PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300
PDCA	Painting & Decorating Contractors of America www.pdca.com	(800) 332-7322 (314) 514-7322
PDI	Plumbing & Drainage Institute www.pdionline.org	(800) 589-8956 (978) 557-0720
RCSC	Research Council on Structural Connections www.boltcouncil.org	
SAE	SAE International www.sae.org	(877) 606-7323 (724) 776-4841
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org	(703) 803-2980
SPIB	Southern Pine Inspection Bureau (The) www.spib.org	(850) 434-2611
SSINA	Specialty Steel Industry of North America www.ssina.com	(800) 982-0355 (202) 342-8630
SSPC	SSPC: The Society for Protective Coatings www.sspc.org	(877) 281-7772 (412) 281-2331

SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org	(816) 472-7974
TCA	Tile Council of America, Inc. (Now TCNA)	
TCNA	Tile Council of North America, Inc. www.tileusa.com	(864) 646-8453
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
UL	Underwriters Laboratories Inc. www.ul.com	(877) 854-3577 (847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902
WCLIB	West Coast Lumber Inspection Bureau www.wclib.org	(800) 283-1486 (503) 639-0651
WCMA	Window Covering Manufacturers Association www.wcmanet.org	(212) 297-2122
WDMA	Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) www.wdma.com	(800) 223-2301 (847) 299-5200
WI	Woodwork Institute (Formerly: WIC - Woodwork Institute of California) www.wicnet.org	(916) 372-9943
WIC	Woodwork Institute of California (Now WI)	
WMMPA	Wood Moulding & Millwork Producers Association www.wmmpa.com	(800) 550-7889 (530) 661-9591
WWPA	Western Wood Products Association www.wwpa.org	(503) 224-3930

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

PRIVATE tbl2

FBC Florida Building Code – 2010 Edition with all adopted amendments

FFPC Florida Fire Prevention Code

SWFWMD Southwest Florida Water Management District www.swfwmd.org (800) 423-1476

Mantee County Health Department www.floridahealth.goc/ChdManatee/Index.htm

(941) 748-0747

City of Palmetto Fire Marshall

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

of the date of the Contract Documents. PRIVATE tbl3				
CE	Army Corps of Engineers www.usace.army.mil	(202) 761-0011		
CPSC	Consumer Product Safety Commission www.cpsc.gov	(800) 638-2772 (301) 504-7923		
DOC	Department of Commerce www.commerce.gov	(202) 482-2000		
DOD	Department of Defense http://.dodssp.daps.dla.mil	(215) 697-6257		
DOE	Department of Energy www.energy.gov	(202) 586-9220		
EPA	Environmental Protection Agency www.epa.gov	(202) 272-0167		
FAA	Federal Aviation Administration www.faa.gov	(866) 835-5322		
FCC	Federal Communications Commission www.fcc.gov	(888) 225-5322		
FDA	Food and Drug Administration www.fda.gov	(888) 463-6332		
GSA	General Services Administration www.gsa.gov	(800) 488-3111		
HUD	Department of Housing and Urban Development www.hud.gov	(202) 708-1112		
LBL	Lawrence Berkeley National Laboratory www.lbl.gov	(510) 486-4000		
NCHRP	National Cooperative Highway Research Program (See TRB)			
NIST	National Institute of Standards and Technology www.nist.gov	(301) 975-6478		
OSHA	Occupational Safety & Health Administration www.osha.gov	(800) 321-6742 (202) 693-1999		

PBS	Public Buildings Service (See GSA)			
PHS	Office of Public Health and Science www.osophs.dhhs.gov/ophs	(202) 690-7694		
RUS	Rural Utilities Service (See USDA)	(202) 720-9540		
SD	State Department www.state.gov	(202) 647-4000		
TRB	Transportation Research Board http://gulliver.trb.org	(202) 334-2934		
USDA	Department of Agriculture www.usda.gov	(202) 720-2791		
USPS	Postal Service www.usps.com	(202) 268-2000		
Co fo ac	D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents. PRIVATE tbl4			
ADAAG	Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board www.access-board.gov	(800) 872-2253 (202) 272-0080		
CFR	Code of Federal Regulations Available from Government Printing Office www.gpoaccess.gov/cfr/index.html	(866) 512-1800 (202) 512-1800		
FED-STI	Federal Standard (See FS)			
FS	Federal Specification Available from Department of Defense Single Stock Point http://dodssp.daps.dla.mil	(215) 697-2664		
	Available from Defense Standardization Program www.dps.dla.mil			
	Available from General Services Administration www.gsa.gov	(202) 619-8925		
	Available from National Institute of Building Sciences www.wbdg.org/ccb	(202) 289-7800		
FTMS	Federal Test Method Standard (See FS)			

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

UFAS Uniform Federal Accessibility Standards

Available from Access Board www.access-board.gov

(800) 872-2253 (202) 272-0080

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Sections:

1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric power service use charges for electricity used by all entities for construction operations.
- E. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- F. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- G. Sewer, Water, and Electric Power Service: Use charges are specified in Division 01 Section "Multiple Contract Summary."

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

- C. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage, including delivery, handling, and storage provisions for materials subject to water absorption or water damage, discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water damaged Work.
 - 1. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- D. Dust-Control and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust-control and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
 - 1. Locations of dust-control partitions at each phase of the work.
 - 2. HVAC system isolation schematic drawing.
 - 3. Location of proposed air filtration system discharge.
 - 4. Other dust-control measures.
 - 5. Waste management plan.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.

1.6 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top rails.
- B. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide galvanized steel bases for supporting posts.

- C. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10 mils minimum thickness, with flame-spread rating of 15 or less per ASTM E 84.
- D. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.
- E. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
 - 1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
 - 2. Conference room of sufficient size to accommodate meetings of 12 individuals. Provide electrical power service and 120-V ac duplex receptacles, with not less than 1 receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- square tack and marker boards.
 - 3. Drinking water and private toilet.
 - 4. Coffee machine and supplies.
 - 5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
 - 6. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction and clean HVAC system as required in Division 01 Section "Closeout Procedures" as well as all LEED requirements.
- C. Air Filtration Units: HEPA primary and secondary filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
 - 1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- E. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- F. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- G. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed in accordance with approved coordination drawings.
 - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.

- b. Maintain negative air pressure within work area using HEPA-equipped air filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
- 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust containment devices.
- 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- H. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
 - 1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
- I. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- J. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead or underground, unless otherwise indicated.
 - 2. Connect temporary service to Owner's existing power source, as directed by Owner.
- K. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install lighting for Project identification sign.
- L. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one (minimum) telephone line(s) for each field office.
 - 1. Provide additional telephone lines for the following:
 - a. Provide a dedicated telephone line for each facsimile machine in each field office.
 - b. Provide one telephone line(s) for Owner's use.
 - 2. At each telephone, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Architect's office.
 - e. Engineers' offices.
 - f. Owner's office.
 - g. Principal subcontractors' field and home offices.
 - 3. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

- M. Electronic Communication Service: Provide a desktop computer in the primary field office adequate for use by Architect and Owner to access project electronic documents and maintain electronic communications. Equip computer with not less than the following:
 - 1. Processor: Intel Pentium D or Intel CoreDuo, 1.8 GHz processing speed.
 - 2. Memory: 2 gigabyte.
 - 3. Disk storage: 80 gigabyte hard disk drive and combination DVD-RW/CD-RW drive.
 - 4. Display: 19-inch LCD monitor with 128 Mb dedicated video RAM.
 - 5. Full-size keyboard and mouse.
 - 6. Network Connectivity: 10/100BaseT Ethernet.
 - 7. Operating System: Microsoft Windows XP Professional or Microsoft Windows Vista Business.
 - 8. Productivity Software:
 - a. Microsoft Office Professional, XP or higher, including Word, Excel, and Outlook.
 - b. Adobe Reader 7.0 or higher.
 - c. WinZip 7.0 or higher.
 - 9. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these 3 functions.
 - 10. Internet Service: Broadband modem, router and ISP, equipped with hardware firewall, providing minimum 384 Kbps upload and 1 Mbps download speeds at each computer.
 - 11. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing and spam protection in a combined application.
 - 12. Backup: External hard drive, minimum 40 gigabyte, with automated backup software providing daily backups.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 - 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.
 - 1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- C. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Division 31 Section "Earth Moving."
 - 3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.

- 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Division 32 Section "Asphalt Paving."
- D. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, payement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- E. Parking: Provide temporary parking areas for construction personnel. All construction personnel are to park on project site and not on adjacent streets. Contractor may provide offsite parking for construction personnel as part of general conditions.
- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform the public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touchup signs so they are legible at all times.
- H. Waste Disposal Facilities: Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."
- I. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 Section "Execution" for progress cleaning requirements.
- J. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- K. Temporary Elevator Use: Use of elevators is not permitted.
- L. Existing Elevator Use: Use of Owner's existing elevators will be permitted, provided elevators are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.
 - 1. Do not load elevators beyond their rated weight capacity.
 - 2. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.

- M. Temporary Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate.
- N. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
 - 1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.
- O. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Division 01 Section "Summary."
- B. Temporary Erosion and Sedimentation Control: Comply with requirements of Southwest Florida Water Management District's General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Division 31 Section "Site Clearing."
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from the project site during the course of the project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- C. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Comply with requirements specified in Division 01 Section "Temporary Tree and Plant Protection."
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.
- G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.

- 1. Extent of Fence: As required to enclose entire Project site.
- 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- J. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- K. Covered Walkway: Erect protective, covered walkway for passage of individuals through or adjacent to Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.
 - 1. Construct covered walkways using scaffold or shoring framing.
 - 2. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 - 3. Paint and maintain appearance of walkway for duration of the Work.
- L. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Prohibit smoking in construction areas.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 - 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
 - 1. Protect porous materials from water damage.
 - 2. Protect stored and installed material from flowing or standing water.

- 3. Keep porous and organic materials from coming into prolonged contact with concrete.
- 4. Remove standing water from decks.
- 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
 - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 - 2. Keep interior spaces reasonably clean and protected from water damage.
 - 3. Periodically collect and remove waste containing cellulose or other organic matter.
 - 4. Discard or replace water-damaged material.
 - 5. Do not install material that is wet.
 - 6. Discard, replace or clean stored or installed material that begins to grow mold.
 - 7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
 - 1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 - 2. Use permanent HVAC system to control humidity.
 - Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48hours are considered defective.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record daily readings over a forty-eight hour period. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - Remove materials that can not be completely restored to their manufactured moisture level within 48 hours.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.
- D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion.

Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

- 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
- 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
- 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Sections:

- 1. Division 01 Section "Substitution Procedures" for requests for substitutions.
- 2. Division 01 Section "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

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

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - Include data to indicate compliance with the requirements specified in "Comparable Products"
 Article.

- Architect's Action: If necessary, Architect will request additional information or documentation
 for evaluation within one week of receipt of a comparable product request. Architect will notify
 Contractor of approval or rejection of proposed comparable product request within 10 days of
 receipt of request, or 5 days of receipt of additional information or documentation, whichever is
 later.
 - a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

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

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
- 2. Store materials in a manner that will not endanger Project structure.
- 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
- 5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- 6. Protect stored products from damage and liquids from freezing.

7. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

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

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

- 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- 3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered, unless otherwise indicated.
 - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:

- a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered, unless otherwise indicated.
- b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
- 5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.

- 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
- 3. Evidence that proposed product provides specified warranty.
- 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
- 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.
 - 9. Correction of the Work.

B. Related Sections:

- 1. Division 01 Section "Submittal Procedures" for submitting surveys.
- 2. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- 3. Demolition plan per Construction Drawings

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

- A. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.

- 3. Products: List products to be used for patching and firms or entities that will perform patching work.
- 4. Dates: Indicate when cutting and patching will be performed.
- 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate how long services and systems will be disrupted.
- B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from the Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Mechanical systems piping and ducts.
 - e. Control systems.
 - f. Communication systems.
 - g. Electrical wiring systems.
 - h. Operating systems of special construction.
 - 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Equipment supports.
 - d. Piping, ductwork, vessels, and equipment.
 - e. Noise- and vibration-control elements and systems.
 - f. All interior finish elements.
 - 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, utilize products for patching that comply with requirements of Division 01 Section "Sustainable Design Requirements."
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, Contractor is to investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.

- c. List of unacceptable installation tolerances.
- d. Recommended corrections.
- 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
- 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
- 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility, Architect and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Division 01 Section "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 3. Inform installers of lines and levels to which they must comply.
 - 4. Check the location, level and plumb, of every major element as the Work progresses.
 - 5. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor or professional engineer to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor or professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 - 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produces harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Temporary Support: Provide temporary support of work to be cut.

- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements of Division 01 Section "Summary."
- E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to adjacent, occupied areas.
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

- 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
- 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 - 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Utilize containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls" and Division 01 Section "Construction Waste Management and Disposal."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Division 01 Section "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

3.10 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.11 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Disposing of non-hazardous construction waste.
- B. Related Sections:
 - 1. Division 04 Section "Unit Masonry" for disposal requirements for masonry waste.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 INFORMATIONAL SUBMITTALS

A. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 - 1. Comply with Division 01 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.
- B. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.

B. Related Sections:

- 1. Division 01 Section "Photographic Documentation" for submitting final completion construction photographic documentation.
- 2. Division 01 Section "Execution" for progress cleaning of Project site.
- 3. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- 4. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- 5. Division 01 Section "Demonstration and Training" for requirements for instructing Owner's personnel.
- 6. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.

- 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
- 8. Complete startup testing of systems.
- 9. Submit test/adjust/balance records.
- 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- 11. Advise Owner of changeover in heat and other utilities.
- 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- 13. Complete final cleaning requirements, including touchup painting.
- 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
 - 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report and warranty.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A or Contractor's form that is acceptable to the Architect.
 - 1. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 2. Include the following information at the top of each page:

- a. Project name.
- b. Date.
- c. Name of Architect.
- d. Name of Contractor.
- e. Page number.
- 3. Submit list of incomplete items in the following format:
 - a. PDF electronic file.
 - b. Three paper copies of product schedule or list, unless otherwise indicated. Architect will return two copies.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 - 4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that meet Green Seal GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
 - Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - q. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter upon inspection.
 - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report upon completion of cleaning.

- r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
- s. Leave Project clean and ready for occupancy.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls" and Division 01 Section "Construction Waste Management and Disposal."

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Maintenance manuals for the care and maintenance of products, materials, and finishes systems and equipment.

B. Related Sections include the following:

- 1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
- 2. Division 01 Section "Closeout Procedures" for submitting operation and maintenance manuals.
- 3. Division 01 Section "Project Record Documents" for preparing Record Drawings for operation and maintenance manuals.
- 4. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 SUBMITTALS

- A. Final Submittal: Submit one copy of each manual in final form at least 15 days before final inspection. Architect will return copy with comments within 15 days after final inspection.
 - 1. Correct or modify each manual to comply with Architect's comments. Submit 3 copies of each corrected manual within 15 days of receipt of Architect's comments.
 - 2. Include required LEED submittals to comply with commissioning requirements.

1.5 COORDINATION

A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

- 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
 - 1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual
 - 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 - 4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
 - 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1. Fire.
 - 2. Flood.
 - 3. Gas leak.
 - 4. Water leak.
 - 5. Power failure.
 - 6. Water outage.
 - 7. System, subsystem, or equipment failure.
 - 8. Chemical release or spill.

- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.
 - 3. Operating instructions for conditions outside normal operating limits.
 - 4. Required sequences for electric or electronic systems.
 - 5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - 1. System, subsystem, and equipment descriptions.
 - 2. Performance and design criteria if Contractor is delegated design responsibility.
 - 3. Operating standards.
 - 4. Operating procedures.
 - 5. Operating logs.
 - 6. Wiring diagrams.
 - 7. Control diagrams.
 - 8. Piped system diagrams.
 - 9. Precautions against improper use.
 - 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
 - 1. Startup procedures.
 - 2. Equipment or system break-in procedures.
 - 3. Routine and normal operating instructions.
 - 4. Regulation and control procedures.
 - 5. Instructions on stopping.
 - 6. Normal shutdown instructions.
 - 7. Seasonal and weekend operating instructions.
 - 8. Required sequences for electric or electronic systems.
 - 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUAL

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard printed maintenance instructions and bulletins.

- 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
- 3. Identification and nomenclature of parts and components.
- 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training videotape, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.

- 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
- 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared Record Drawings in Division 01 Section "Project Record Documents."
- G. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. Related Sections include the following:
 - 1. Division 01 Section "Closeout Procedures" for general closeout procedures.
 - 2. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Divisions 02 through 49 Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit two set(s) of marked-up Record Prints.
 - 2. Number of Copies: Submit copies of Record Drawings as follows:
 - a. Initial Submittal: Submit one set(s) of plots from corrected Record CAD Drawings and one set(s) of marked-up Record Prints. Architect will initial and date each plot and mark whether general scope of changes, additional information recorded, and quality of drafting are acceptable. Architect will return plots and prints for organizing into sets, printing, binding, and final submittal.
 - b. Final Submittal: Submit one set(s) of marked-up Record Prints, one set(s) of Record CAD Drawing files, one set(s) of Record CAD Drawing plots, and three copies printed from record plots. Plot and print each Drawing, whether or not changes and additional information were recorded.
 - 1) Electronic Media: CD-R.
- B. Record Specifications: Submit two copies of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit two copies of each Product Data submittal.

1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - 1. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Transparencies: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected transparencies of the Contract Drawings and Shop Drawings.
 - 1. Incorporate changes and additional information previously marked on Record Prints. Erase, redraw, and add details and notations where applicable.

- 2. Refer instances of uncertainty to Architect for resolution.
- 3. Print the Contract Drawings and Shop Drawings for use as Record Transparencies. Architect will make the Contract Drawings available to Contractor's print shop.
- C. Record CAD Drawings: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected CAD Drawings of the Contract Drawings, as follows:
 - 1. Format: Same CAD program, version, and operating system as the original Contract Drawings.
 - 2. Incorporate changes and additional information previously marked on Record Prints. Delete, redraw, and add details and notations where applicable.
 - 3. Refer instances of uncertainty to Architect for resolution.
 - 4. Architect will furnish Contractor one set of CAD Drawings of the Contract Drawings for use in recording information.
 - a. Architect makes no representations as to the accuracy or completeness of CAD Drawings as they relate to the Contract Drawings.
 - CAD Software Program: The Contract Drawings are available in exported Revit file into AutoCad format.
- D. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
 - 1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 - 2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- E. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.
 - 3. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
 - 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

- 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
- 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
- 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
- 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
- 5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. 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 loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Demonstration and training videotapes.
- B. Related Sections include the following:
 - 1. Divisions 02 through 49 Sections for specific requirements for demonstration and training for products in those Sections.

1.3 SUBMITTALS

- A. Instruction Program: Submit two copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. At completion of training, submit one complete training manual(s) for Owner's use.
- B. Qualification Data: For instructor and photographer.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Demonstration and Training DVD: Submit two copies within seven days of end of each training module.
 - 1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date videotape was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

1.4 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 01 Section "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Photographer Qualifications: A professional photographer who is experienced photographing construction projects.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
 - 1. Motorized doors, including overhead coiling doors and automatic entrance doors.
 - 2. Equipment, including projection screens food-service equipment residential appliances and laboratory fume hoods.
 - 3. Fire-protection systems, including fire alarm, fire pumps and fire-extinguishing systems.
 - 4. Intrusion detection systems.
 - 5. Conveying systems, including elevators.
 - 6. Heat generation, including boilers, feedwater equipment, pumps and water distribution piping.
 - 7. Refrigeration systems, including chillers, cooling towers, condensers pumps and distribution piping.
 - 8. HVAC systems, including air-handling equipment air distribution systems and terminal equipment and devices.
 - 9. HVAC instrumentation and controls.
 - 10. Electrical service and distribution, including transformers switchboards panelboards uninterruptible power supplies and motor controls.
 - 11. Packaged engine generators, including transfer switches.
 - 12. Lighting equipment and controls.
 - 13. Communication systems, including intercommunication surveillance clocks and programming voice and data and television equipment.

- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project Record Documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 - 4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - 1. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
 - 5. Adjustments: Include the following:
 - a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.

- d. Economy and efficiency adjustments.
- 6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
- 7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
- 8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 - 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 - 3. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner with at least 30 days' advance notice.

D. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO

- A. General: Engage a qualified commercial photographer to record demonstration and training videotapes. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 - 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
- B. Video Format: Provide high-quality DVD disks.
- C. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of demonstration and training. Display continuous running time.

SECTION 030580 - UNDER-SLAB VAPOR BARRIER

PART 1 – GENERAL

1.1 SUMMARY

- A. Products supplied under this section:
 - 1. Vapor barrier, seam tape, and mastic for installation under concrete slabs.
- B. Related sections:
 - 1. Section 03 30 00 Cast-in-Place Concrete

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - ASTM E 1745-09 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.
 - 2. ASTM E 154-99 (2005) Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
 - 3. ASTM E 96-05 Standard Test Methods for Water Vapor Transmission of Materials.
 - 4. ASTM F 1249-06 Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor.
 - 5. ASTM E 1643-09 Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
- B. American Concrete Institute (ACI):
 - ACI 302.2R-06 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.

1.3 SUBMITTALS

- A. Quality control/assurance:
 - 1. Summary of test results as per paragraph 8.3 of ASTM E 1745.
 - 2. Manufacturer's samples, literature.
 - Manufacturer's installation instructions for placement, seaming and penetration repair instructions.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Vapor barrier must have all of the following qualities:

- 1. Permeance of less than 0.01 Perms [grains/(ft² · hr · inHg)] as tested in accordance with ASTM E 1745 Section 7.
- 2. Other performance criteria:
 - a. Strength: ASTM E 1745 Class A.
 - b. Thickness: 15 mils minimum

B. Acceptable products:

- 1. Stego Wrap Vapor Barrier (15-mil) by Stego Industries LLC
- 2. Viper VaporCheck (16 mil) by Insulation Solutions, Inc.
- 3. Raven Vaporblock 15 by Raven Industries, Inc.

C. ACCESSORIES

- 1. Seam tape.
- 2. Vapor-proofing mastic.
- 3. Pipe boots.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Ensure that base material is approved by Architect or Geotechnical Engineer.
 - 1. Level and compact base material.

3.2 INSTALLATION

- A. Install vapor barrier in accordance with manufacturer's instructions and ASTM E 1643.
 - 1. Unroll vapor barrier with the longest dimension parallel with the direction of the concrete placement.
 - 2. Lap vapor barrier over footings and/or seal to foundation walls.
 - 3. Wrap vapor barrier up perimeter of slab edge to top of slab.
 - 4. Overlap joints 6 inches and seal with manufacturer's tape.
 - 5. Seal all penetrations (including pipes) per manufacturer's instructions.
 - 6. No penetration of the vapor barrier is allowed except for reinforcing steel and permanent utilities.
 - 7. Repair damaged areas by cutting patches of vapor barrier, overlapping damaged area 6 inches and taping all sides with tape.

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

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. Wood blocking, cants, and nailers.
 - 2. Plywood panels for sub-surface of countertops.

1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 4 inches nominal in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NHLA: National Hardwood Lumber Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. SPIB: The Southern Pine Inspection Bureau.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For the following, from ICC-ES:
 - 1. Preservative-treated wood.
 - 2. Power-driven fasteners.
 - 3. Powder-actuated fasteners.
 - 4. Expansion anchors.

1.6 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
 - 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 4. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
 - 2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

- For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece.
- D. Application: Treat all miscellaneous carpentry unless otherwise indicated.

2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber and any of the following species:
 - 1. Mixed southern pine; SPIB.
 - 2. Spruce-pine-fir; NLGA.
- C. For concealed boards, provide lumber with 15 or 19 percent maximum moisture content and any of the following species and grades:
 - 1. Mixed southern pine, No. 2 grade; SPIB.
 - 2. Spruce-pine-fir (south) or spruce-pine-fir, Construction or No. 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
- D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: DOC PS 1, Exterior, AC, in thickness indicated or, if not indicated, not less than 3/4-inch nominal thickness.

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - 1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Metal Framing: ASTM C 1002 or ASTM C 954, length as recommended by screw manufacturer for material being fastened.

- F. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 - 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
 - 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels.
- D. Do not splice structural members between supports unless otherwise indicated.
- E. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
- F. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- G. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use inorganic boron for items that are continuously protected from liquid water.
- H. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Fastening Schedule in 2007 Florida Building Code.
- I. Use galvanized steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

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SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

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 the following:
 - 1. Interior frames and jambs.
 - 2. Plastic-laminate cabinets.
 - 3. Plastic-laminate countertops.
- B. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips unless concealed within other construction before woodwork installation.

1.3 SUBMITTALS

- A. Product Data: For cabinet hardware and accessories, and finishing materials and processes.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
- C. Samples:
 - 1. Plastic-laminates, for each type, color, pattern, and surface finish.
 - 2. Solid surfacing material for each type, color, pattern, and surface finish.
- D. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of woodwork.
- B. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards."
 - 1. Provide AWI Quality Certification Program labels and certificates for woodwork, including installation.
- C. Forest Certification: Provide interior architectural woodwork produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria."

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 WOODWORK FABRICATORS

- A. Available Fabricators: Subject to compliance with requirements, fabricators offering interior architectural woodwork that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Mill-Rite Woodworking Co., Inc.
 - 2. LSI.
 - 3. Lyndan, Inc.
 - 4. Cabinet Systems International.
- B. For the Work of this Section, other fabricators who have at least a five year history of successful and similar projects, will be considered. Provide information describing alternate fabricators for review by Owner and Architect.

2.2 MATERIALS

- A. Wood Products:
 - 1. Hardboard: AHA A135.4.
 - 2. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
 - 3. Softwood Plywood: DOC PS 1, Medium Density Overlay.
- B. High-Pressure Decorative Laminate: grades as indicated or, if not indicated, as required by woodwork quality standard. Basis of Design Manufacturer: Wilsonart

2.3 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, fire-retardant-treated, kiln-dried to less than 15 percent moisture content.
- B. Adhesives, General: Do not use adhesives that contain urea formaldehyde.
- C. Plastic corner guards, as indicated, as manufactured by Pawling Corp.

2.4 FABRICATION

- A. Plastic-Laminate Countertops:
 - 1. High-Pressure Decorative Laminate Grade: HGS (See drawings for locations)
 - 2. High-Pressure & Chemical-Resistant Decorate Laminate (See drawings for locations)
 - 3. Colors, Patterns, and Finishes: As selected by Architect from laminate manufacturer's full range of colors, wood grains, patterns with matte finish.
 - 4. Edge Treatment: As indicated.
 - 5. Core Material at Sinks: Medium-density fiberboard made with exterior glue or exterior-grade plywood.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas. Examine shop-fabricated work for completion and complete work as required, including removal of packing and back priming.

- B. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- C. Install woodwork level, plumb, true, and straight to a tolerance of 1/16 inch in 96 inches. Shim as required with concealed shims.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation.
- F. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation.
 - 1. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood framing, blocking, or hanging strips or No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish.
- G. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop. Calk space between backsplash and wall with sealant specified in Division 07 Section "Joint Sealants."

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SECTION 064100 - ARCHITECTURAL CASEWORK

PART 1 - GENERAL

1.1 SUBMITTALS

- A. Provide complete shop drawings for approval prior to ordering materials or beginning fabrication.
 - 1. Cabinet maker to supply a floor plan of the area with room numbers corresponding to the architectural plans and a copy of these specifications along with a schedule of approval, fabrication, production, delivery and installation.

B. Samples:

1. Provide samples for verification of all finish materials prior to ordering materials or beginning fabrication.

1.2 QUALITY ASSURANCE

- A. Cabinets to be made in a climate controlled shop.
- B. Cabinet makers and installer to have a minimum of three (3) years of experience.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials against weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels. Provide for air circulation within and around stacks and under temporary coverings.
- B. Deliver interior finish carpentry only when environmental conditions meet requirements specified for installation areas. If finish carpentry must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install interior finish carpentry until building is enclosed and weatherproof, wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit work to be performed according to manufacturer's written instructions and warranty requirements and at least one coat of specified finish to be applied without exposure to rain, snow, or dampness.

1.5 WARRANTY

A. Provide a three (3) year warranty on all casework and installation

1.6 PRODUCTS

A. Laminates

- 1. Exposed face laminates
 - a. Nevamar Laminate is standard for the tops and cabinet sides, doors, and drawer fronts.
 - b. All colors and grains to match (both interior and exterior)
 - c. If a countertop calles for a 90 degree, 45 degree the corners and match grain.
 - d. Colors
 - 1) Countertops: Nevamar Blossom Cherry WC558IN
 - 2) Casework: Nevamar Jet Black S6053T
- 2. Interior
 - a. Interior to be vt cabinet liner for all interiors with doors and drawers.
- 3. Adhesive
 - a. Adhesive to be Wilsonart 951 glue.

B. Cabinet Construction

- 1. Sides and Frames
 - a. Sides and Frames to be 3/4" white birch plywood.
- 2. Backs
 - a. Backs to be ½" white birch plywood.
- 3. Doors
 - a. Doors to be MDF and laminated 6 sides (no pvc edges)
- 4. Shelving
 - a. Shelving to be ¾" birch plywood and laminated 6 sides.
- 5. Countertops
 - a. Countertops to be built with top later of MDF and a base layer of ¾" birch plywood. The bottoms of each top are to be solid and laminated. All exposed edges to be laminated.

C. Hardware

- 1. Screws to be zinc plated square head screws.
- 2. Handles to be 4" wire pull brush nickel.
- 3. Drawer slides to be Blum metabox full extension drawer slides with metabox file systems.
- 4. Hinges to be Salice soft close hinges, 110 degree, unless otherwise called for.
- 5. Hanging rail systems to be metabox steel rails rail support brackets and covers.
- 6. Shelf pins to be ½ nickel.
- 7. Support brackets to be fastcap speed brace 21 x 28.
- 8. Grommets to be 2'' 6'' wherever applicable.

1.7 PROJECT CLOSEOUT

A. Adjusting

- 1. Replace finish carpentry that is damaged or does not comply with requirements. Finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repairing or refinishing. Adjust joinery, doors and drawers for uniform appearance.
- 2. If caulking is applicable, use color match caulking.

B. Cleaning

- 1. Clean finish carpentry on exposed and semi-exposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.
- 2. All Cabinets to be vacuumed and polished with Pledge at end of each install.

SECTION 072100 - THERMAL INSULATION

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. This Section includes the following:
 - 1. Cavity-wall insulation.
 - 2. Concealed building insulation.
- B. Related Sections include the following:
 - 1. Division 04 Section "Unit Masonry" for insulation installed in cavity walls and masonry cells.
 - 2. Division 07 Section "Ethylene Interpolymer (KEE) Membrane Roofing" for insulation specified as part of roofing construction.
 - 3. Division 07 Section "Fire-Resistive Joint Systems" for insulation installed as part of a perimeter fire-resistive joint system.
 - 4. Division 09 Section "Gypsum Board" for installation in metal-framed assemblies of insulation specified by referencing this Section.
 - 5. Division 22 Section "Plumbing Insulation."
 - 6. Division 23 Section "HVAC Insulation."

1.3 DEFINITIONS

A. Mineral-Fiber Insulation: Insulation composed of rock-wool fibers, slag-wool fibers, or glass fibers; produced in boards and blanket with latter formed into batts (flat-cut lengths) or rolls.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for insulation products.
- C. Research/Evaluation Reports: For foam-plastic insulation.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of building insulation through one source from a single manufacturer.

- B. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Surface-Burning Characteristics: ASTM E 84.
 - 2. Fire-Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- B. Protect plastic insulation as follows:
 - 1. Do not expose to sunlight, except to extent necessary for period of installation and concealment.
 - 2. Protect against ignition at all times. Do not deliver plastic insulating materials to Project site before installation time.
 - 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 FOAM-PLASTIC BOARD INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, of type and density indicated below, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively:
 - 1. Manufacturers:
 - a. DiversiFoam Products.
 - b. Dow Chemical Company.
 - c. Owens Corning.
 - 2. Type VII, 2.20 lb/cu. ft..

2.3 GLASS-FIBER BLANKET INSULATION

A. Manufacturers:

- 1. CertainTeed Corporation.
- 2. Johns Manville.
- 3. Knauf Fiber Glass.
- 4. Owens Corning.
- B. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- C. Faced, Glass-Fiber Blanket Insulation: ASTM C 665, Type III (blankets with reflective membrane facing), Class A (membrane-faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier), faced with polypropylene-scrim-kraft vapor-retarder membrane on 1 face.
- D. Where glass-fiber blanket insulation is indicated by the following thicknesses, provide blankets in batt or roll form with thermal resistances indicated:
 - 1. 3-1/2 inches thick with a thermal resistance of 11 deg F x h x sq. ft./Btu at 75 deg F.

2.4 AUXILIARY INSULATING MATERIALS

A. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates indicated without damaging insulation and substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements of Sections in which substrates and related work are specified and for other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of substances harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders or of interfering with insulation attachment.

3.3 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.

E. For preformed insulating units, provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

3.4 INSTALLATION OF CAVITY-WALL INSULATION

- A. On units of foam-plastic board insulation, install pads of adhesive spaced approximately 24 inches o.c. both ways on inside face, and as recommended by manufacturer. Fit courses of insulation between wall ties and other obstructions, with edges butted tightly in both directions. Press units firmly against inside substrates indicated.
 - 1. Supplement adhesive attachment of insulation by securing boards with two-piece wall ties designed for this purpose and specified in Division 04 Section "Unit Masonry."

3.5 INSTALLATION OF GENERAL BUILDING INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- B. Seal joints between foam-plastic insulation units by applying adhesive, mastic, or sealant to edges of each unit to form a tight seal as units are shoved into place. Fill voids in completed installation with adhesive, mastic, or sealant as recommended by insulation manufacturer.
- Set vapor-retarder-faced units with vapor retarder to warm-in-winter side of construction, unless otherwise indicated.
 - 1. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to surrounding construction to ensure airtight installation.
- D. Install mineral-fiber insulation in cavities formed by framing members according to the following requirements:
 - 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
 - 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Maintain 3-inch clearance of insulation around recessed lighting fixtures.
 - 4. For metal-framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.

3.6 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072100

SECTION 081416 - FLUSH WOOD DOORS

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. Solid-core doors with wood-veneer faces.
- 2. Factory finishing flush wood doors.
- 3. Factory fitting flush wood doors to frames and factory machining for hardware.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of door indicated. Include details of core and edge construction and trim for openings. Include factory-finishing specifications.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
 - 1. Indicate dimensions and locations of mortises and holes for hardware.
 - 2. Indicate dimensions and locations of cutouts.
 - 3. Indicate requirements for veneer matching.
 - 4. Indicate doors to be factory finished and finish requirements.
 - 5. Indicate fire-protection ratings for fire-rated doors.

C. Samples for Verification:

- 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish. For each wood species and transparent finish, provide set of three samples showing typical range of color and grain to be expected in the finished work.
- 2. Corner sections of doors, approximately 8 by 10 inches, with door faces and edges representing actual materials to be used.
 - a. Provide samples for each species of veneer and solid lumber required.
 - b. Provide samples for each color, texture, and pattern of plastic laminate required.
 - c. Finish veneer-faced door samples with same materials proposed for factory-finished doors.
- 3. Frames for light openings, 6 inches long, for each material, type, and finish required.

1.4 INFORMATIONAL SUBMITTALS

A. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors from single manufacturer.
- B. Quality Standard: In addition to requirements specified, comply with AWI's "Architectural Woodwork Quality Standards Illustrated."
 - 1. Provide AWI Quality Certification Labels or an AWI letter of licensing for Project indicating that doors comply with requirements of grades specified.
- C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at according to NFPA 252.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in plastic bags or cardboard cartons.
- C. Mark each door on top and bottom rail with opening number used on Shop Drawings.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

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.
 - 1. Failures include, but are not limited to, the following:
 - a. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
 - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
 - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 3. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Algoma Hardwoods, Inc.
 - 2. Buell Door Company Inc.
 - 3. Graham; an Assa Abloy Group company.

- 4. Mohawk Flush Doors, Inc.; a Masonite company.
- 5. VT Industries Inc.

2.2 DOOR CONSTRUCTION, GENERAL

- A. Low-Emitting Materials: Fabricate doors with adhesives and composite wood products that do not contain urea formaldehyde.
- B. Structural-Composite-Lumber-Core Doors:
 - 1. Structural Composite Lumber: WDMA I.S.10.
 - a. Screw Withdrawal, Face: 700 lbf.b. Screw Withdrawal, Edge: 400 lbf.

2.3 VENEERED-FACED DOORS FOR TRANSPARENT FINISH

- A. Interior Solid-Core Doors:
 - 1. Grade: Premium, with Grade A faces.
 - 2. Species: Select White Maple.
 - 3. Cut: Plain sliced (flat sliced).
 - 4. Match between Veneer Leaves: Book match.
 - 5. Assembly of Veneer Leaves on Door Faces: Center-balance match.
 - 6. Pair and Set Match: Provide for doors hung in same opening or separated only by mullions.
 - 7. Room Match: Provide door faces of compatible color and grain within each separate room or area of building.
 - 8. Exposed Vertical and Top Edges: Same species as faces.
 - 9. Core: Either glued wood stave or structural composite lumber.
 - 10. Construction: Five plies. Stiles and rails are bonded to core, then entire unit abrasive planed before veneering. Faces are bonded to core using a hot press.

2.4 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
 - 1. Comply with requirements in NFPA 80 for fire-rated doors.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
 - 1. Coordinate with hardware mortises in metal frames to verify dimensions and alignment before factory machining.
- C. Openings: Cut and trim openings through doors in factory.
 - 1. Light Openings: Trim openings with moldings of material and profile indicated.
 - 2. Glazing: Factory install glazing in doors indicated to be factory finished. Comply with applicable requirements in Division 08 Section "Glazing."

2.5 FACTORY FINISHING

- A. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
 - 1. Finish faces, all four edges, edges of cutouts, and mortises. Stains and fillers may be omitted on bottom edges, edges of cutouts, and mortises.
- B. Finish doors at factory.
- C. Transparent Finish:
 - 1. Grade: Premium.
 - 2. Finish: AWI conversion varnish or catalyzed polyurethane system.
 - 3. Effect: Filled finish.
 - 4. Sheen: Satin.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames before hanging doors.
 - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
 - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 08 Section "Door Hardware."
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
 - 1. Install fire-rated doors in corresponding fire-rated frames according to NFPA 80.
- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
- D. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.
- B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416

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SECTION 087111 - DOOR HARDWARE

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. Mechanical door hardware for the following:
 - a. Swinging doors.

B. Related Sections:

- 1. Division 08 Section "Hollow Metal Doors and Frames" for astragals provided as part of labeled fire-rated assemblies and for door silencers provided as part of hollow-metal frames.
- 2. Electrical Drawings "Access Control" for access control devices installed at door openings and provided as part of a security system.
- 3. Electrical Drawings "Intrusion Detection" for detection devices installed at door openings and provided as part of an intrusion-detection system.
- C. Products furnished, but not installed, under this Section include the products listed below. Coordinating and scheduling the purchase and delivery of these products remain requirements of this Section.
 - 1. Permanent lock cores to be installed by Owner.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction and installation details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Other Action Submittals:

- 1. Door Hardware Schedule: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - a. Submittal Sequence: Submit door hardware schedule after or concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
 - b. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents.

- c. Content: Include the following information:
 - Identification number, location, hand, fire rating, size, and material of each door and frame.
 - Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
 - 3) Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
 - 4) Fastenings and other pertinent information.
 - 5) Explanation of abbreviations, symbols, and codes contained in schedule.
 - 6) Mounting locations for door hardware.
 - 7) List of related door devices specified in other Sections for each door and frame.
- C. Product Test Reports: For compliance with accessibility requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.
- D. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware schedule.
- E. Warranty: Special warranty specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and an Architectural Hardware Consultant who is available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
 - 1. Warehousing Facilities: In Project's vicinity.
 - 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
- B. Source Limitations: Obtain each type of door hardware from a single manufacturer.
- C. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meet requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. at the tested pressure differential of 0.3-inch wg of water.
- D. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- E. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the Florida Building Code.
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
 - 2. Comply with the following maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.
 - 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than.

- 4. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.
- F. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." In addition to Owner, Construction Manager, Contractor, and Architect, conference participants shall also include Installer's Architectural Hardware Consultant and Owner's security consultant. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:
 - 1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2. Preliminary key system schematic diagram.
 - 3. Requirements for access control.
 - 4. Address for delivery of keys.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

1.6 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection, cracking, or breakage.
 - b. Faulty operation of doors and door hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.

- 2. Warranty Period: Three years from date of Substantial Completion, unless otherwise indicated.
 - a. Exit Devices: Two years from date of Substantial Completion.
 - b. Manual Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. Provide door hardware for each door as scheduled on Drawings to comply with requirements in this Section.
 - 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated.
- B. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in Part 3 "Door Hardware Schedule" Article. Products are identified by descriptive titles corresponding to requirements specified in Part 2.

2.2 HINGES

- A. Hinges: BHMA A156.1.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. *IVES
 - b. Hager Companies.
 - c. Stanley Commercial Hardware; Div. of The Stanley Works.
- B. Antifriction-Bearing Hinges:
 - 1. Mounting: Full mortise (butts).
 - 2. Bearing Material: Ball bearing.
 - 3. Grade: Grade 1 (heavy weight).
 - 4. Base and Pin Metal:
 - a. Exterior Hinges: Stainless steel with stainless-steel pin.
 - b. Interior Hinges: Steel with stainless-steel pin.
 - c. Hinges for Fire-Rated Assemblies: Steel with steel pin.
 - 5. Pins: Nonremovable.
 - a. Outswinging Exterior Doors: Maximum security.
 - 6. Tips: Flat button.
 - 7. Corners: Square.

2.3 SURFACE CLOSERS

- A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group company.
 - b. DORMA Architectural Hardware; Member of The DORMA Group North America.
 - c. *LCN Closers; an Ingersoll-Rand company.
 - d. Norton Door Controls; an ASSA ABLOY Group company.
 - e. Rixson Specialty Door Controls; an ASSA ABLOY Group company.
 - f. Falcon Closers; an Ingersoll-Rand company.

2.4 MECHANICAL STOPS AND HOLDERS

- A. Wall- and Floor-Mounted Stops: BHMA A156.16; polished cast brass, bronze, or aluminum base metal.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Hager Companies.
 - b. Rockwood Manufacturing Company.
 - c. Stanley Commercial Hardware; Div. of The Stanley Works.
 - d. *IVES; an Ingersoll-Rand company.
- B. Wall Bumpers: Grade 2; with rubber bumper; 2-1/2-inch diameter, minimum 3/4-inch projection from wall; with backplate for concealed fastener installation; with convex bumper configuration.

2.5 METAL PROTECTIVE TRIM UNITS

- A. Metal Protective Trim Units: BHMA A156.6; fabricated from 0.050-inch- thick stainless steel; with manufacturer's standard machine or self-tapping screw fasteners.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. *IVES Hardware; an Ingersoll-Rand company.
 - b. Rockwood Manufacturing Company.
- B. Kick Plates: 10 inches high by door width with allowance for frame stops.

2.6 FABRICATION

- A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rated labels and as otherwise approved by Architect.
 - 1. Manufacturer's identification is permitted on rim of lock cylinders only.

- B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.
- C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.
 - Concealed Fasteners: For door hardware units that are exposed when door is closed, except for
 units already specified with concealed fasteners. Do not use through bolts for installation where
 bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the
 door hardware. Where through bolts are used on hollow door and frame construction, provide
 sleeves for each through bolt.
 - 2. Fire-Rated Applications:
 - a. Steel Through Bolts: For the following unless door blocking is provided:
 - 1) Closers to doors and frames.
 - 3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
 - Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.7 FINISHES

- A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.
- B. Protect mechanical 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 doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

3.3 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
- B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
 - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- C. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- D. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 - 1. Replace construction cores with permanent cores as directed by Owner.
 - 2. Furnish permanent cores to Owner for installation.
- E. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- F. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.
- G. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- H. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- I. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 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.
 - 1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

3.5 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

PART 4 - HARDWARE GROUPS

Hardware Group No. 01

For use on mark/door #(s):

1-105 3-100A 3-108

Provide each PR door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
6	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	FIRE EXIT HARDWARE	9827-EO-F-LBR-499F-SNB	626	VON
1	EA	FIRE EXIT HARDWARE	9827-L-F-LBR-996-16-499F-SNB	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	MAGNETIC LOCK	M420P ATS/LED-2	628	SCE
2	EA	SURFACE CLOSER	1461	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B4E	630	IVE
2	EA	WALL STOP	WS406CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER
1	EA	PUSHBUTTON	621AL DA NS	629	SCE
1	EA	MOTION SENSOR	SCANII	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-BBK FA900	LGR	SCE

Card reader by security supplier

Wiring Diagram by Hardware Supplier

Card reader to release Magnetic lock, Push button to release magnet also tir to release on fire alarm

Hardware Group No. 02

For use on mark/door #(s):

1-104D 2-100A 3-107 3-1111

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	FIRE EXIT HARDWARE	98-L-F-996-16-SNB	626	VON
1	EA	RIM CYLINDER	20-057	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	1461	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E	630	IVE
1	EA	WALL STOP	WS406CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 03

For use on mark/door #(s):

1-102

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	AL80PD OME	626	SCH
1	EA	SURFACE CLOSER	1461	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E	630	IVE
1	EA	WALL STOP	WS406CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 04

For use on mark/door #(s):

1-100	2-100A	2-100D	2-112	2-113	2-113A
3-105A	3-106A				

Provide each SGL door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	CLASSROOM LOCK	AL70PD OME	626	SCH
1	EA	MAGNETIC LOCK	M420P ATS/LED-2	628	SCE
1	EA	SURFACE CLOSER	1461	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B4E	630	IVE
1	EA	WALL STOP	WS406CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER
1	EA	PUSHBUTTON	621AL DA NS	629	SCE
1	EA	MOTION SENSOR	SCANII	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-BBK FA900	LGR	SCE

Wiring Diagram by Hardware Supplier

Card reader by security supplier

Card reader to release Magnetic lock, Push button to release magnet also tir to release on fire alarm

Manatee County Supervisor of Elections – Phases 2 and 3 Bradenton, Florida Hardware Group No. 05 For use on mark/door #(s): 2-104 2-106 2-107 3-102 Provide each SGL door(s) with the following: Description Catalog Number Finish Mfr Qty 3 EA HINGE 3CB1 4.5 X 4.5 652 **IVE** EA PRIVACY LOCK AL40S OME 626 **SCH** 1 1 EA SURFACE CLOSER 1461 689 **LCN** 1 EA KICK PLATE 8400 10" X 2" LDW B4E 630 IVE 1 EA WALL STOP WS406CCV 630 **IVE** 3 EA **SILENCER** SR64 **GRY IVE** Hardware Group No. 06 For use on mark/door #(s): 3-105 3-106 Provide each SGL door(s) with the following: Qty Description Catalog Number Finish Mfr 3 EA HINGE 3CB1 4.5 X 4.5 652 **IVE** EA PASSAGE SET AL10S OME 1 626 **SCH** 1 EA SURFACE CLOSER 1461 689 **LCN** 8400 10" X 2" LDW B4E 1 EA KICK PLATE 630 IVE 1 EA WALL STOP WS406CCV 630 **IVE SEALS** 1 SET 140A AL **ZER** EA DOOR BOTTOM 350A **ZER** ΑL Hardware Group No. 07 For use on mark/door #(s): 2-109 2-110 2-111 3-101 3-102 3-103 Provide each SGL door(s) with the following: Qty Description Catalog Number Finish Mfr EA HINGE 3CB1 4.5 X 4.5 652 **IVE** 3 EA 1 DOOR PULL, 1" ROUND 8103EZ 10" L 630 **IVE** 1 EA **PUSH PLATE** 8200 4" X 16" 630 **IVE** SURFACE CLOSER 1461 689 LCN 1 EA 1 EA WALL STOP WS406CCV 630 **IVE SET SEALS** 140A ZER 1 AL EA DOOR BOTTOM 350A AL **ZER** 1

Hardware Group No. 08

For use on mark/door #(s):

1-104A 1-104B 1-104C 3-114A 3-144B 3-114C

Provide each BF door(s) with the following:

Qty Description Catalog Number Finish Mfr
1 BALANCE OF HARDWARE BY DOOR

DALANCE OF HANDWAKE BY DOOR

MANUFACTURER

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

Hardware Group No. 09

For use on mark/door #(s): AS REQUIERED PER OWNER

Provide each PR door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
1	EA	PANIC HARDWARE	98-EO	626	VON
1			REUSE EXISTING DOOR HARDWARE		

Hardware Group No. 10

For use on mark/door #(s): 3-115A 3-115B

Provide each PR door(s) with the following:

Qty		Description	Catalog Number	Finish	Mfr
6	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	CONST LATCHING BOLT	FB51T	630	IVE
1	EA	CLASSROOM LOCK	AL70PD OME	626	SCH
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	SURFACE CLOSER	1461	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B4E	630	IVE
2	EA	WALL STOP	WS406CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

END OF SECTION 087111

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SECTION 092216 - NON-STRUCTURAL METAL FRAMING

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. Non-load-bearing steel framing systems for interior gypsum board assemblies.
- B. Related Requirements:
 - 1. Division 05 Section "Cold-Formed Metal Framing" for exterior and interior load-bearing and exterior non-load-bearing wall studs; floor joists; roof rafters and ceiling joists; and roof trusses.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

2.2 FRAMING SYSTEMS

- A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.
 - 1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal unless otherwise indicated.
 - 2. Protective Coating: ASTM A 653/A 653M, G60, hot-dip galvanized unless otherwise indicated.
- B. Studs and Runners: ASTM C 645. Use either steel studs and runners or dimpled steel studs and runners.
 - 1. Steel Studs and Runners:

- a. Minimum Base-Metal Thickness: 0.027 inch.
- b. Depth: As indicated on Drawings.

2. Dimpled Steel Studs and Runners:

- a. Minimum Base-Metal Thickness: 0.025 inch.
- b. Depth: As indicated on Drawings.

2.3 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
 - 1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Coordination with Sprayed Fire-Resistive Materials:
 - 1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling runners (tracks) to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches o.c.
 - 2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

3.3 INSTALLATION, GENERAL

- A. Installation Standard: ASTM C 754.
 - 1. Gypsum Plaster Assemblies: Also comply with requirements in ASTM C 841 that apply to framing installation.
 - 2. Portland Cement Plaster Assemblies: Also comply with requirements in ASTM C 1063 that apply to framing installation.
 - 3. Gypsum Veneer Plaster Assemblies: Also comply with requirements in ASTM C 844 that apply to framing installation.
 - 4. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Install bracing at terminations in assemblies.
- D. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.4 INSTALLING FRAMED ASSEMBLIES

- A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
 - 1. Single-Layer Application: 16 inches o.c. unless otherwise indicated.
 - 2. Tile Backing Panels: 16 inches o.c. unless otherwise indicated.
- B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.
- C. Install studs so flanges within framing system point in same direction.
- D. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.
 - 1. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
 - a. Install two studs at each jamb unless otherwise indicated.
 - b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
 - c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
 - 2. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
 - 3. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
 - 4. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.

E. Direct Furring:

- 1. Screw to wood framing.
- 2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
- F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION 092216

SECTION 092400 - PORTLAND CEMENT PLASTERING

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. Exterior portland cement plasterwork (stucco) on metal lath unit masonry and monolithic concrete.

B. Related Sections:

- 1. Division 05 Section "Cold-Formed Metal Framing" for structural, load-bearing (transverse and axial) steel studs and joists that support lath and portland cement plaster.
- 2. Division 09 Section "Non-Structural Metal Framing" for non-structural framing and suspension systems that support lath and portland cement plaster.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.

1.4 QUALITY ASSURANCE

- A. Sound-Transmission Characteristics: Where indicated, provide portland cement plaster assemblies identical to those of assemblies tested for STC ratings per ASTM E 90 and classified according to ASTM E 413 by a qualified testing agency.
- B. Mockups: Before plastering, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Install mockups for each type of finish indicated.
 - 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

- A. Comply with ASTM C 926 requirements.
- B. Exterior Plasterwork:
 - 1. Apply and cure plaster to prevent plaster drying out during curing period. Use procedures required by climatic conditions, including moist curing, providing coverings, and providing barriers to deflect sunlight and wind.
 - 2. Apply plaster when ambient temperature is greater than 40 deg F.
 - 3. Protect plaster coats from freezing for not less than 48 hours after set of plaster coat has occurred.

PART 2 - PRODUCTS

2.1 METAL LATH

- A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.
 - 1. Diamond-Mesh Lath: Flat Self-furring, 3.4 lb/sq. yd..
 - 2. 3/8-Inch Rib Lath: 4 lb/sq. yd..
- B. Paper Backing: FS UU-B-790, Type I, Grade B, Style 1a vapor-retardant paper.
 - 1. Provide paper-backed lath unless otherwise indicated at exterior locations.

2.2 ACCESSORIES

- A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.
- B. Plastic Accessories: Fabricated from high-impact PVC.
 - 1. Manufacturers: Subject to compliance with requirements,:
 - a. Plastic Components, Inc.
 - b. Vinyl Corp.
 - 2. Cornerbeads: With perforated flanges.
 - a. Small nose cornerbead; use unless otherwise indicated.
 - 3. Casing Beads: With perforated flanges in depth required to suit plaster bases indicated and flange length required to suit applications indicated.
 - a. Square-edge style; use unless otherwise indicated.
 - 4. Control Joints: One-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.
 - 5. Expansion Joints: Two-piece type, formed to produce slip-joint and square-edged 1/2-inch- wide reveal; with perforated concealed flanges.

2.3 MISCELLANEOUS MATERIALS

- A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
- B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in portland cement plaster.
- C. Bonding Compound: ASTM C 932.
- D. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of no fewer than three exposed threads.
- E. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.
- F. Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, not less than 0.0475-inch diameter, unless otherwise indicated.

2.4 PLASTER MATERIALS

- A. Portland Cement: ASTM C 150, Type II.
 - 1. Color for Finish Coats: Gray.
- B. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.
- C. Sand Aggregate: ASTM C 897.

2.5 PLASTER MIXES

- A. General: Comply with ASTM C 926 for applications indicated.
 - 1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. yd. of cementitious materials.
- B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:
 - 1. Portland Cement Mixes:
 - a. Scratch Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
 - b. Brown Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.
- C. Base-Coat Mixes: Single base coats for two-coat plasterwork as follows:
 - 1. Portland Cement Mix: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.

D. Job-Mixed Finish-Coat Mixes:

1. Portland Cement Mix: For cementitious materials, mix 1 part portland cement and 1-1/2 to 2 parts lime. Use 1-1/2 to 3 parts aggregate per part of cementitious material.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.
- B. Prepare solid substrates for plaster that are smooth or that do not have the suction capability required to bond with plaster according to ASTM C 926.

3.3 INSTALLING METAL LATH

- A. Expanded-Metal Lath: Install according to ASTM C 1063.
 - 1. Partition Framing and Vertical Furring: Install flat diamond-mesh lath.
 - 2. Flat-Ceiling and Horizontal Framing: Install 3/8-inch rib lath lath.
 - 3. On Solid Surfaces, Not Otherwise Furred: Install self-furring, diamond-mesh lath.

3.4 INSTALLING ACCESSORIES

A. Install according to ASTM C 1063 and at locations indicated on Drawings.

3.5 PLASTER APPLICATION

- A. General: Comply with ASTM C 926.
 - 1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10-foot straightedge placed on surface.
 - 2. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
 - 3. Provide plaster surfaces that are ready to receive field-applied finishes indicated.
- B. Bonding Compound: Apply on unit masonry and concrete plaster bases.

- C. Walls; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork; 3/4-inch thickness.
 - 1. Portland cement mixes.
- D. Ceilings; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork; 3/4 inch thick on concrete.
 - 1. Portland cement mixes.
- E. Walls; Base-Coat Mix: Scratch coat for two-coat plasterwork, 3/8 inch thick on concrete masonry.
 - 1. Portland cement mixes.
- F. Ceilings; Base-Coat Mix: Scratch coat for two-coat plasterwork, 1/4 inch thick on concrete.
 - 1. Portland cement mixes.
- G. Plaster Finish Coats: Apply to provide float finish to match Architect's sample.

3.6 PLASTER REPAIRS

A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

3.7 PROTECTION

A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 092400

Section added 08-03-08 for RFI PC 003 response.

SECTION 092900 - GYPSUM BOARD

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 the following:
 - 1. Interior gypsum board.
 - 2. Exterior gypsum board for ceilings and soffits.
 - 3. Tile backing panels.
- B. See Division 05 Section "Cold-Formed Metal Framing" for structural, load-bearing (transverse and axial) steel studs and joists that support gypsum board, lath and portland cement plaster.
- C. See Division 09 Section "Non-Structural Metal Framing" for non-structural metal framing which forms a supporting substrate for gypsum board and portland cement plaster.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated and/or required.
- B. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch- long length for each trim accessory indicated.
 - 2. Textured Finishes: Manufacturer's standard size for each textured finish indicated and on same backing indicated for Work.

1.4 QUALITY ASSURANCE

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
- C. Mockups: Before beginning gypsum board installation, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Install mockups for the following:
 - a. Each level of gypsum board finish indicated for use in exposed locations.
 - b. Each texture finish indicated.
 - 2. Apply or install final decoration indicated, including painting and wall coverings, on exposed surfaces for review of mockups.
 - 3. Simulate finished lighting conditions for review of mockups.
 - 4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

2.1 INTERIOR GYPSUM BOARD

- A. General: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. American Gypsum Co.
- b. G-P Gypsum.
- c. National Gypsum Company.
- d. USG Corporation.
- B. Regular Type:
 - 1. Thickness: 1/2 inch.
 - 2. Long Edges: Tapered.
- C. Type X:
 - 1. Thickness: 5/8 inch.
 - 2. Long Edges: Tapered.
- D. Special Type X: Having improved fire resistance over standard Type X, and complying with requirements of fire-resistance-rated assemblies indicated on Drawings.
 - 1. Thickness: As required by fire-resistance-rated assembly indicated on Drawings.
 - 2. Long Edges: Tapered.
- E. Flexible Type: Manufactured to bend to fit radii and to be more flexible than standard regular-type gypsum board of same thickness.
 - 1. Thickness: 1/4 inch.
 - 2. Long Edges: Tapered.
- F. Ceiling Type: Manufactured to have more sag resistance than regular-type gypsum board.
 - 1. Thickness: 1/2 inch.
 - 2. Long Edges: Tapered.
- G. Moisture- and Mold-Resistant Type: With moisture- and mold-resistant core and surfaces.
 - 1. Core: 5/8 inch, Type X.
 - 2. Long Edges: Tapered.

2.2 EXTERIOR GYPSUM BOARD FOR CEILINGS AND SOFFITS

- A. Exterior Gypsum Soffit Board: ASTM C 931/C 931M or ASTM C 1396/C 1396M, with manufacturer's standard edges.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Gypsum Co.
 - b. G-P Gypsum.
 - c. National Gypsum Company.
 - d. USG Corporation.
 - 2. Core: 5/8 inch, Type X.
- B. Glass-Mat Gypsum Sheathing Board: ASTM C 1177/C 1177M.
 - 1. Product: Subject to compliance with requirements, provide "Dens-Glass Gold" by G-P Gypsum.
 - 2. Core: 5/8 inch, Type X.

2.3 TILE BACKING PANELS (As indicated)

- A. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M or ASTM C 1396/C 1396M.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. G-P Gypsum.
 - b. National Gypsum Company.
 - c. PABCO Gypsum.
 - d. USG Corporation.
 - 2. Core: As indicated on Drawings to be 1/2 inch, regular type or Special Type X as required by fire-resistance-rated assembly indicated on Drawings.
- B. Glass-Mat, Water-Resistant Backing Board:
 - 1. Complying with ASTM C 1178/C 1178M.

- a. Product: Subject to compliance with requirements, provide "DensShield Tile Guard" by G-P Gypsum.
- 2. Core: As indicated on Drawings.
- C. Cementitious Backer Units: ANSI A108.1.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Custom Building Products; Wonderboard.
 - b. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
 - e. USG Corporation; DUROCK Cement Board.
 - 2. Thickness: As indicated on Drawings, or 1/2 inch if not indicated.

2.4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
 - 1. Material: Rolled zinc or plastic.
 - 2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.
 - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - f. Expansion (control) joint.
 - g. Curved-Edge Cornerbead: With notched or flexible flanges.
- B. Exterior Trim: ASTM C 1047.
 - 1. Material: Plastic or rolled zinc.
 - 2. Shapes:
 - a. Cornerbead.
 - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - c. Expansion (Control) Joint: One-piece, rolled zinc with V-shaped slot and removable strip covering slot opening.
- C. Aluminum Trim (Where applicable and/or indicated): Extruded accessories of profiles and dimensions indicated.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Fry Reglet Corp.
 - b. Gordon, Inc.
 - c. Pittcon Industries.
 - 2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221, Alloy 6063-T5.
 - 3. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.

2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Wallboard: Paper.
 - 2. Exterior Gypsum Soffit Board: Paper.
 - 3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
 - 4. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.

- 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping drying-type, all-purpose compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
- 3. Fill Coat: For second coat, use setting-type, sandable topping compound.
- 4. Finish Coat: For third coat, use setting-type, sandable topping compound.
- 5. Skim Coat: For final coat of Level 5 finish, use high-build interior coating product designed for application by airless sprayer and to be used instead of skim coat to produce Level 5 finish.
- D. Joint Compound for Exterior Applications:
 - 1. Exterior Gypsum Soffit Board: Use setting-type taping compound and setting-type, sandable topping compound.
 - 2. Glass-Mat Gypsum Sheathing Board: As recommended by sheathing board manufacturer.
- E. Joint Compound for Tile Backing Panels:
 - 1. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.
 - 2. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.
 - 3. Cementitious Backer Units: As recommended by backer unit manufacturer.

2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
 - 1. Use adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- C. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 - For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
 - 1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
- E. Acoustical Sealant: As specified in Division 07 Section "Joint Sealants."
- F. Thermal Insulation: As specified in Division 07 Section "Thermal Insulation."

2.7 TEXTURE FINISHES

- A. Primer: As recommended by textured finish manufacturer.
- B. Polystyrene Aggregate Ceiling Finish: Water-based, job-mixed, polystyrene aggregate finish with flame-spread and smoke-developed indexes of not more than 25 when tested according to ASTM E 84.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. G-P Gypsum; Georgia-Pacific Regency Ceiling Textures/Polystyrene.
 - b. National Gypsum Company; Perfect Spray.
 - c. USG Corporation; SHEETROCK Ceiling Spray Texture, QT.
 - 2. Texture: Medium or as scheduled.
- C. Aggregate Finish: Water-based, job-mixed, aggregated, drying-type texture finish for spray application.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. G-P Gypsum; Georgia-Pacific Ceiling Textures/Vermiculite.
 - b. USG Corporation; SHEETROCK Wall and Ceiling Spray Texture (Aggregated).

- 2. Texture: Spatter knock-down or as scheduled.
- D. Acoustical Finish: Water-based, chemical-setting or drying-type, job-mixed texture finish for spray application.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. International Cellulose Corp.; SonaSpray "fc."
 - b. USG Corporation; USG Acoustical Plaster Finish.
 - 2. Application Thickness: 1/2 inch.
 - 3. Fire-Test-Response Characteristics: Indices when tested according to ASTM E 84 as follows:
 - a. Flame Spread: Less than 25.
 - b. Smoke Developed: Less than 450.
 - 4. NRC: 0.55 according to ASTM C 423.

PART 3 - EXECUTION

3.1 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations, and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- D. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members, or provide control joints to counteract wood shrinkage.

3.2 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Regular Type: Vertical surfaces, unless otherwise indicated.
 - 2. Type X: As indicated on Drawings and/or where required for fire-resistance-rated assembly.
 - 3. Special Type X: Where required for specific fire-resistance-rated assembly indicated.
 - 4. Flexible Type: As indicated on Drawings. Apply in double layer at curved assemblies.
 - 5. Ceiling Type: Ceiling surfaces.
 - 6. Moisture- and Mold-Resistant Type: As indicated on Drawings.

3.3 APPLYING EXTERIOR GYPSUM PANELS FOR CEILINGS AND SOFFITS

- A. Apply panels perpendicular to supports, with end joints staggered and located over supports.
 - 1. Install with 1/4-inch open space where panels abut other construction or structural penetrations.
 - 2. Fasten with corrosion-resistant screws.

3.4 APPLYING TILE BACKING PANELS

- A. Water-Resistant Gypsum Backing Board: Install at showers, tubs, and where indicated. Install with 1/4-inch gap where panels abut other construction or penetrations.
- B. Glass-Mat, Water-Resistant Backing Panel: Comply with manufacturer's written installation instructions and install at showers, tubs, and where indicated. Install with 1/4-inch gap where panels abut other construction or penetrations.
- C. Cementitious Backer Units: ANSI A108.1, at showers, tubs, and where indicated.
- D. Areas Not Subject to Wetting (if approved by the Architect): Install regular-type gypsum wallboard panels to produce a flat surface except at showers, tubs, and other locations indicated to receive water-resistant panels.

E. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners, unless otherwise indicated.
 - 2. Bullnose Bead: Use at outside corners and where indicated.
 - 3. LC-Bead: Use at exposed panel edges.
 - 4. L-Bead: Use where indicated.
 - 5. U-Bead: Use at exposed panel edges and where indicated.
 - 6. Curved-Edge Cornerbead: Use at curved openings.
- D. Exterior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners.
 - 2. LC-Bead: Use at exposed panel edges.
- E. Aluminum Trim: Install in locations indicated on Drawings.

3.6 FINISHING GYPSUM BOARD

- 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.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - 2. Level 2: Panels that are substrate for tile, panels that are substrate for acoustical tile and/or where indicated on Drawings.
 - 3. Level 3: Where indicated on Drawings.
 - 4. Level 4: At panel surfaces that will be exposed to view, unless otherwise indicated.
 - a. Primer and its application to surfaces are specified in other Division 09 Sections.
 - 5. Level 5: Where indicated on Drawings.
 - a. Primer and its application to surfaces are specified in other Division 09 Sections.
- E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.
- F. Glass-Mat, Water-Resistant Backing Panels: Finish according to manufacturer's written instructions.
- G. Cementitious Backer Units: Finish according to manufacturer's written instructions.

3.7 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture matching approved mockup and free of starved spots or other evidence of thin application or of application patterns.
- C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions,

texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written recommendations.

3.8 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

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SECTION 093000 - TILING

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 the following, as applicable:
 - Porcelain Floor Tile
 - 2. Glazed wall tile.
 - 3. Waterproof membrane for thin-set tile installations.
 - 4. Crack-suppression membrane for thin-set tile installations.
 - 5. Cementitious backer units installed as part of tile installations.
 - 6. Metal edge strips installed as part of tile installations.

1.3 SUBMITTALS

- A. Product Data: For each product indicated and/or specified.
- B. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints.
- C. Samples:
 - 1. Each type, composition, color, and finish of tile.
 - 2. Assembled samples with grouted joints for each type, composition, color, and finish of tile.
 - 3. Stone thresholds in 6-inch lengths.

1.4 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution.
 - 1. Build mockup of each type of floor tile installation.
 - 2. Build mockup of each type of wall tile installation.
 - 3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 1.5 percent of amount installed, for each selected type, composition, color, pattern, and size indicated.
 - Architect and Owner to determine which tile and trim units are to be provided for Owner's "attic stock".

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.

2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.

2.2 TILE PRODUCTS

- A. Available Manufacturers:
 - 1. American Olean; Div. of Dal-Tile International Corp.
 - 2. DalTile; Div. of Dal-Tile International Inc.
 - 3. Florida Tile Industries, Inc.
- B. ANSI Ceramic Tile Standard: Provide Standard grade tile that complies with ANSI A137.1, "Specifications for Ceramic Tile," for types, compositions, and other characteristics indicated.

2.3 SELECTIONS

- A. Tiles: The following described materials are general in character and some may be modified and/or deleted as the Project develops.
- B. Porcelain Floor Tile: Square-edged flat tile as follows:
 - 1. Wearing Surface: Nonabrasive, smooth or Abrasive aggregate embedded in surface.
 - 2. Facial Dimensions: 12 by 24 inches.
 - 3. Thickness: 5/16 inch.
 - 4. Face: Plain.
 - 5. Products: See Finish Legend
- C. Glazed Wall Tile: Flat tile as follows:
 - 1. Module Size: 4-1/4 by 4-1/4 inches
 - 2. Thickness: 5/16 inch.
 - 3. Face: Plain with modified square edges or cushion edges.
 - 4. Finish: Semi Gloss
 - 5. Mounting: Factory back-mounted.
 - 6. Products: See Finish Legend
- D. Glazed Wall Tile Trim Units: Matching characteristics of adjoining flat tile and coordinated with sizes and coursing where applicable.
 - 1. Base: Coved, module size 4-1/4 by 4-1/4 inches
 - 2. External Corners: Surface bull nose.
 - 3. Internal Corners: Field-butted square corners except with coved base and cap angle pieces designed to fit with stretcher shapes.
- E. Porcelain Tile Trim Units: Matching characteristics of adjoining flat tile and coordinated with sizes and coursing where applicable.
 - 1. Base: Coved with surface bull nose top edge, facial dimensions to be coordinated with tile in field.

2.4 ACCESSORY MATERIALS

- A. Waterproofing and Crack-Suppression Membranes for Thin-Set Tile Installations: Manufacturer's standard product that complies with ANSI A118.10, selected from the following.
 - 1. Chlorinated-Polyethylene-Sheet Product: Non-plasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric, 0.030-inch nominal thickness.
 - a. Available Product: Noble Company (The); Nobleseal TS.
 - 2. Polyethylene-Sheet Product: Polyethylene faced on both sides with fleece webbing, 0.008-inch nominal thickness.

- a. Available Product: Schluter Systems L.P.; KERDI.
- 3. Latex-Portland Cement Product: Flexible mortar with acrylic-latex additive.
 - a. Available Products:
 - 1) Boiardi Products Corporation; Elastiment 323.
 - 2) MAPEI Corporation; PRP 315.
 - 3) Southern Grouts & Mortars, Inc.; Southcrete 1100.
 - 4) TEC Specialty Products Inc.; TA-324, Triple Flex.
- 4. Urethane Waterproofing and Tile-Setting Adhesive: One-part liquid-applied urethane, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - a. Available Products:
 - 1) Bostik; Hydroment Ultra-Set.
 - 2) Southern Grouts & Mortars, Inc.; Deck-Seal 1000.

2.5 SETTING AND GROUTING MATERIALS

- A. Available Manufacturers:
 - DAP, Inc.
 - 2. LATICRETE International Inc.
 - 3. MAPEI Corporation.
 - 4. TEC Specialty Products Inc.
- B. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.
 - 1. Prepackaged dry-mortar mix combined with liquid-latex additive.
 - 2. For wall applications, provide non-sagging mortar.
- Polymer-Modified Tile Grout: ANSI A118.7, color as indicated; sanded or unsanded, as selected by the Architect.
 - 1. Polymer Type: Liquid-latex form for addition to prepackaged dry-grout mix.

2.6 MISCELLANEOUS MATERIALS

- A. Elastomeric Sealants: Elastomeric sealants of base polymer and characteristics indicated that comply with applicable requirements in Division 07 Section "Joint Sealants."
 - Use sealants that have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - 2. One-Part, Mildew-Resistant Silicone: ASTM C 920; Type S; Grade NS; Class 25; Uses NT, G, A, and, as applicable to nonporous joint substrates indicated, O; formulated with fungicide, intended for in-service exposures of high humidity and extreme temperatures.
 - a. Available Products:
 - 1) Dow Corning Corporation; Dow Corning 786.
 - 2) GE Silicones; Sanitary 1700.
 - 3) Pecora Corporation; Pecora 898 Sanitary Silicone Sealant.
 - 4) Tremco, Inc.; Tremsil 600 White.
 - 3. Multipart, Pourable Urethane Sealant for Use T: ASTM C 920; Type M; Grade P; Class 25; Uses T, M, A, and, as applicable to joint substrates indicated, O.
 - a. Products:
 - 1) Bostik; Chem-Calk 550.
 - 2) Mameco International, Inc.; Vulkem 245.
 - 3) Pecora Corporation; NR-200 Urexpan.
 - 4) Tremco, Inc.; THC-900.
- B. Cementitious Backer Units: ANSI A118.9 in maximum lengths available to minimize end-to-end butt joints.
 - 1. Thickness: As indicated.
 - 2. Available Products:

- a. C-Cure; C-Cure Board 990.
- b. Custom Building Products; Wonderboard.
- c. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
- d. USG Corporation; DUROCK Cement Board.
- C. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials.
- D. Metal Edge Strips: Angle or L-shape, stainless steel; ASTM A 666, 300 Series exposed-edge material.
- E. Grout Sealer: Manufacturer's standard silicone product for sealing grout joints that does not change color or appearance of grout.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Remove coatings, including curing compounds and other substances that contain soap, wax, oil, or silicone, that are incompatible with tile-setting materials.
- B. Fill cracks, holes, and depressions with trowelable leveling and patching compound according to tilesetting material manufacturer's written instructions.
- C. Remove protrusions, bumps, and ridges by sanding or grinding.
- D. Blending: For tile exhibiting color variations, use factory blended tile or blend tiles at Project site before installing.
- E. Field-Applied Temporary Protective Coating: Where indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, pre-coat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

3.2 INSTALLATION, GENERAL

- A. ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply to types of setting and grouting materials and to methods indicated in ceramic tile installation schedules.
- B. TCA Installation Guidelines: TCA's "Handbook for Ceramic Tile Installation." Comply with TCA installation methods indicated in ceramic tile installation schedules.
- C. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions, unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- D. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Grind cut edges of tile abutting trim, finish, or built-in items. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- E. Jointing Pattern: Lay tile in grid pattern, unless otherwise indicated. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise indicated.
- F. Lay out tile accents to next full tile beyond dimensions indicated.
- G. Expansion Joints: Locate expansion joints and other sealant-filled joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.

- 1. Locate joints in tile surfaces directly above joints in concrete substrates.
- 2. Prepare joints and apply sealants to comply with requirements in Division 07 Section "Joint Sealants."
- H. Grout tile to comply with requirements of ANSI A108.10, unless otherwise indicated.
 - 1. For chemical-resistant epoxy grouts, comply with ANSI A108.6.
- I. At showers, and where indicated, install cementitious backer units and treat joints to comply with ANSI A108.11.
- J. Install waterproofing to comply with ANSI A108.13 and waterproofing manufacturer's written instructions to produce waterproof membrane of uniform thickness bonded securely to substrate.
 - 1. Do not install tile over waterproofing until waterproofing has cured and been tested to determine that it is watertight.
- K. For installations indicated below, follow procedures in ANSI A108 Series tile installation standards for providing 95 percent mortar coverage.
 - 1. Tile floors in wet areas.
 - 2. Tile floors composed of rib-backed tiles.
- L. Install tile on floors with the following joint widths:
 - 1. Quarry Tile: 3/8 inch.
- M. Metal Edge Strips: Install at locations indicated or where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with top of tile.
- N. Install metal lath and scratch coat for walls to comply with ANSI A108.1A, Section 4.1.
- O. Install tile on walls with the following joint widths:
 - 1. Glazed Wall Tile: 1/16 inch.
 - 2. Quarry Tile: 3/8 inch.
- P. Apply grout sealer to grout joints in tile floors according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer that gets on tile faces by wiping with soft cloth.

3.3 FLOOR TILE INSTALLATION SCHEDULE

- A. Interior floor installation on concrete; cement mortar bed (thickset) with cleavage membrane; TCA F111 or bonded to concrete; TCA F112.
 - 1. Bond Coat/Thin-Set Mortar: Latex- Portland cement mortar.
 - 2. Grout: Polymer-modified sanded grout.
- B. Interior floor installation on concrete; thin-set mortar; TCA F113.
 - 1. Thin-Set Mortar: Latex- Portland cement mortar.
 - 2. Grout: Polymer-modified sanded grout.
- C. Interior floor installation on concrete; water-cleanable epoxy adhesive; TCA F116.
 - 1. Grout: Polymer-modified sanded grout.
- D. Interior floor installation on waterproof crack-suppression membrane over concrete; thin-set mortar; TCA F122.
 - 1. Thin-Set Mortar: Latex-Portland cement mortar.
 - 2. Grout: Polymer-modified unsanded grout.

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

3.4 WALL TILE INSTALLATION SCHEDULE

- A. Interior wall installation; thin-set mortar; over cementitious backer units; TCA W244.
 - 1. Thin-Set Mortar: Latex- Portland cement mortar.
 - 2. Grout: Polymer-modified unsanded grout.

END OF SECTION 093000

SECTION 099123 - INTERIOR PAINTING

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 surface preparation and the application of paint systems on the following interior substrates (where applicable):
 - 1. Concrete.
 - 2. Concrete masonry units (CMU).
 - 3. Steel.
 - 4. Galvanized metal.
 - 5. Gypsum board.
 - 6. Plaster.

B. Related Requirements:

- 1. Division 05 Sections for shop priming of metal substrates with primers specified in this Section.
- 2. Division 06 Sections for shop priming carpentry with primers specified in this Section.
- 3. Division 08 Sections for factory priming windows and doors with primers specified in this Section.

1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.
 - 3. VOC content.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- 1. PPG Architectural Finishes, Inc. (Basis of Design)
- 2. Benjamin Moore & Co.
- 3. M.A.B. Paints.
- 4. Scott Paint.
- 5. Sherwin-Williams Company (The).
- 6. Behr Process Corporation.
- B. Products: Subject to compliance with requirements, provide one of the products listed in other Part 2 articles for the paint category indicated.

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. Colors: Match Architect's samples as indicated in a color schedule.
 - 1. 30 percent of surface area will be painted with deep tones.

2.3 PRIMERS/SEALERS

A. Primer Sealer, Latex, Interior: MPI #50.

2.4 METAL PRIMERS

- A. Primer, Rust-Inhibitive, Water Based: MPI #107.
- B. Primer, Alkyd, Quick Dry, for Metal: MPI #76.
- C. Primer, Galvanized, Water Based: MPI #134.

2.5 WATER-BASED PAINTS

- A. Latex, Interior, Flat, (Gloss Level 1): MPI #53.
- B. Latex, Interior, (Gloss Level 2): MPI #44.
- C. Latex, Interior, (Gloss Level 3): MPI #52.
- D. Latex, Interior, (Gloss Level 4): MPI #43.
- E. Latex, Interior, Semi-Gloss, (Gloss Level 5): MPI #54.

- F. Latex, Interior, Gloss, (Gloss Level 6, except minimum gloss of 65 units at 60 degrees): MPI #114.
- G. Latex, Interior, Institutional Low Odor/VOC, Flat (Gloss Level 1): MPI #143.
- H. Latex, Interior, Institutional Low Odor/VOC, (Gloss Level 2): MPI #144.
- I. Latex, Interior, Institutional Low Odor/VOC, (Gloss Level 3): MPI #145.
- J. Latex, Interior, Institutional Low Odor/VOC, Semi-Gloss (Gloss Level 5): MPI #147.
- K. Latex, Interior, High Performance Architectural, (Gloss Level 4): MPI #140.
- L. Latex, Interior, High Performance Architectural, Semi-Gloss (Gloss Level 5): MPI #141.
- M. Light Industrial Coating, Interior, Water Based, Semi-Gloss (Gloss Level 5): MPI #153.
- N. Light Industrial Coating, Interior, Water Based, Gloss (Gloss Level 6): MPI #154.

2.6 SOLVENT-BASED PAINTS

- A. Alkyd, Interior, Flat (Gloss Level 1): MPI #49.
- B. Alkyd, Interior, (Gloss Level 3): MPI #51.
- C. Alkyd, Interior, Semi-Gloss (Gloss Level 5): MPI #47.
- D. Alkyd, Interior, Gloss (Gloss Level 6): MPI #48.
- E. Alkyd, Quick Dry, Semi-Gloss (Gloss Level 5): MPI #81.
- F. Alkyd, Quick Dry, Gloss (Gloss Level 7): MPI #96.

2.7 FLOOR COATINGS

- A. Stain, Interior, for Concrete Floors: MPI #58.
- B. Sealer, Water Based, for Concrete Floors: MPI #99.

2.8 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
 - 1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 - 2. Testing agency will perform tests for compliance with product requirements.
 - 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Gypsum Board: 12 percent.
 - 5. Plaster: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Plaster Substrates: Verify that plaster is fully cured.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:

- 1. SSPC-SP 2, "Hand Tool Cleaning."
- 2. SSPC-SP 3, "Power Tool Cleaning."
- 3. SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
- 4. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE: **PPG Architectural Finishes, Inc. (Basis of Design)**

A. Concrete Substrates, Nontraffic Surfaces:

1. Latex System:

a.	Prime Coat: Primer sealer, latex, interior, MPI #50.	6-2
b.	Intermediate Coat: Latex, interior, matching topcoat.	
c.	Topcoat: Latex, interior, flat, (Gloss Level 1), MPI #53.	6-70
d.	Topcoat: Latex, interior, (Gloss Level 2), MPI #44.	6-411
e.	Topcoat: Latex, interior, (Gloss Level 3), MPI #52.	6-3511
f.	Topcoat: Latex, interior, (Gloss Level 4), MPI #43.	16-510
g.	Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.	6-500
h.	Topcoat: Latex, interior, gloss, (Gloss Level 6, except	
	minimum gloss of 65 units at 60 degrees), MPI #114.	52-110

B. Concrete Substrates, Traffic Surfaces:

1. Concrete Stain System:

a.	First Coat: Stain, interior, for concrete floors, MPI #58.	PP3249
b.	Topcoat: Stain, interior, for concrete floors, MPI #58.	PP3249

2. Water-Based Clear Sealer System:

a.	First Coat: Sealer, water based, for concrete floors, MPI #99.	4-6200
b.	Topcoat: Sealer, water based, for concrete floors, MPI #99.	4-6200

C. CMU Substrates:

1. Latex System:

a. b.	Block Filler: Block filler, latex, interior/exterior, MPI #4. Intermediate Coat: Latex, interior, matching topcoat.	6-15
c.	Topcoat: Latex, interior, flat, (Gloss Level 1), MPI #53.	6-70
d.	Topcoat: Latex, interior, (Gloss Level 2), MPI #44.	6-411
e.	Topcoat: Latex, interior, (Gloss Level 3), MPI #52.	6-3511
f.	Topcoat: Latex, interior, (Gloss Level 4), MPI #43.	16-510
g.	Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.	6-500
h.	Topcoat: Latex, interior, gloss, (Gloss Level 6, except	
	minimum gloss of 65 units at 60 degrees), MPI #114.	52-110

2. Institutional Low-Odor/VOC Latex System:

a.	Block Filler: Block filler, latex, interior/exterior, MPI #4.	6-15
b.	Intermediate Coat: Latex, interior, institutional low odor/VOC,	
	matching topcoat.	
c.	Topcoat: Latex, interior, institutional low odor/VOC,	
	flat (Gloss Level 1), MPI #143	9-100
d.	Topcoat: Latex, interior, institutional low odor/VOC,	
	(Gloss Level 2), MPI #144.	9-300
e.	Topcoat: Latex, interior, institutional low odor/VOC,	
	(Gloss Level 3), MPI #145.	9-300
f.	Topcoat: Latex, interior, institutional low	
	odor/VOC, semi-gloss (Gloss Level 5), MPI #147.	9-500

3. High-Performance Architectural Latex System:

a.	Block Filler: Block filler, latex, interior/exterior, MPI #4.	6-15
b.	Intermediate Coat: Latex, interior, high performance	
	architectural, matching topcoat.	
c.	Topcoat: Latex, interior, high performance architectural,	
	(Gloss Level 2), MPI #138.	6-421
d.	Topcoat: Latex, interior, high performance architectural,	
	(Gloss Level 3), MPI #139.	16-310
e.	Topcoat: Latex, interior, high performance architectural,	
	(Gloss Level 4), MPI #140.	16-510
f.	Topcoat: Latex, interior, high performance	
	architectural, semi-gloss (Gloss Level 5), MPI #141.	6-500

4. Water-Based Light Industrial Coating System:

a.	Block Filler: Block filler, latex, interior/exterior, MPI #4.	6-15
b.	Intermediate Coat: Light industrial coating, interior, water based,	
	matching topcoat.	
c.	Topcoat: Light industrial coating, interior, water based	
	(Gloss Level 3), MPI #151.	90-1110
d.	Topcoat: Light industrial coating, interior,	
	water based, semi-gloss (Gloss Level 5), MPI #153.	90-1210
e.	Topcoat: Light industrial coating, interior, water based, gloss	
	(Gloss Level 6), MPI #154.	90-1310

5. Alkyd System:

a.	Block Filler: Block filler, latex, interior/exterior, MPI #4.	6-15
b.	Sealer Coat: Primer sealer, latex, interior, MPI #50.	6-2
c.	Intermediate Coat: Alkyd, interior, matching topcoat.	
d.	Topcoat: Alkyd, interior, flat (Gloss Level 1), MPI #49.	WMZ33233
		Flat Sheen Oil
e.	Topcoat: Alkyd, interior, (Gloss Level 3), MPI #51.	6-90XI
f.	Topcoat: Alkyd, interior, semi-gloss (Gloss Level 5), MPI #47.	6-110XI
g.	Topcoat: Alkyd, interior, gloss (Gloss Level 6), MPI #48.	7-282

D. Steel Substrates:

1. Quick-Drying Enamel System:

a.	Prime Coat: Primer, alkyd, quick dry, for metal, MPI #76.	94-258
b.	Intermediate Coat: Alkyd, quick dry, matching topcoat.	7-844
c.	Topcoat: Alkyd, quick dry, semi-gloss (Gloss Level 5), MPI #81.	7-844
d.	Topcoat: Alkyd, quick dry, gloss (Gloss Level 7), MPI #96.	95-9000

E. Galvanized-Metal Substrates:

1. Latex over Waterborne Primer System:

a.	Prime Coat: Primer, galvanized, water based, MPI #134.	90-912
b.	Intermediate Coat: Latex, interior, matching topcoat.	
c.	Topcoat: Latex, interior, flat, (Gloss Level 1), MPI #53.	6-70
d.	Topcoat: Latex, interior, (Gloss Level 2), MPI #44.	6-411
e.	Topcoat: Latex, interior, (Gloss Level 3), MPI #52.	6-3511
f.	Topcoat: Latex, interior, (Gloss Level 4), MPI #43.	16-510
g.	Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.	6-500
h.	Topcoat: Latex, interior, gloss, (Gloss Level 6, except	
	minimum gloss of 65 units at 60 degrees), MPI #114.	52-110

F. Gypsum Board [**Plaster**] Substrates:

1. Latex System:

a.	Prime Coat: Primer sealer, latex, interior, MPI #50.	6-2
b.	Prime Coat: Latex, interior, matching topcoat.	
c.	Intermediate Coat: Latex, interior, matching topcoat.	
d.	Topcoat: Latex, interior, (Gloss Level 2), MPI #44.	6-411
e.	Topcoat: Latex, interior, (Gloss Level 3), MPI #52.	6-3511
f.	Topcoat: Latex, interior, (Gloss Level 4), MPI #43.	16-510
g.	Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.	6-500
h.	Topcoat: Latex, interior, gloss, (Gloss Level 6, except	
	minimum gloss of 65 units at 60 degrees), MPI #114.	52-110

END OF SECTION 099123

SECTION 101400 - SIGNAGE

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. This Section includes the following:
 - 1. Panel signs (Provide signage required to meet current code as required for occupancy. All other signage provide by owner.)

1.3 DEFINITIONS

A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details for signs.
 - 1. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
 - 2. Provide message list, typestyles, graphic elements, including tactile characters and Braille, and layout for each sign.
- C. Samples for Initial Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available for the following:
 - 1. Aluminum.
 - 2. Acrylic sheet.
 - 3. Fiberglass sheet.
- D. Samples for Verification: For each of the following products and for the full range of color, texture, and sign material indicated, of sizes indicated:
 - 1. Plaque: 6 inches square.
 - 2. Aluminum: For each form, finish, and color, on 6-inch-long sections of extrusions and squares of sheet at least 4 by 4 inches.
 - 3. Acrylic Sheet: 8 by 10 inches for each color required.
 - 4. Fiberglass Sheet: 8 by 10 inches for each color required.
 - 5. Panel Signs: Not less than 12 inches square.
 - 6. Trim: 6-inch- long sections of each profile.

- 7. Accessories: Manufacturer's full-size unit.
- E. Sign Schedule: Use same designations indicated on Drawings.
- F. Qualification Data: For fabricator.
- G. Maintenance Data: For signs to include in maintenance manuals.
- H. Warranty: Special warranty specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Fabricator Qualifications: 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.
- C. Source Limitations for Signs: Obtain each sign type indicated from one source from a single manufacturer.
- D. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility Guidelines and the Florida Building Code.

1.6 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit installation of signs in exterior locations to be performed according to manufacturers' written instructions and warranty requirements.
- B. Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.7 COORDINATION

A. Coordinate placement of anchorage devices with templates for installing signs.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of polymer finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image colors.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).

2.2 PANEL SIGNS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. ACE Sign Systems, Inc.
 - 2. ASI-Modulex, Inc.
 - 3. Best Sign Systems Inc.
 - 4. Gemini Incorporated.
 - 5. Mohawk Sign Systems.
 - 6. Signature Signs, Incorporated.
- B. Interior Panel Signs: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner, complying with the following requirements:
 - 1. Acrylic Sheet: 0.080 inch thick.
 - 2. PVC Sheet: 0.080-inch- thick, extruded, high-impact PVC plastic in color to match face color.
 - 3. Edge Condition: Beveled.
 - 4. Corner Condition: Rounded to radius indicated.
 - 5. Mounting: Unframed.
 - a. Wall mounted with concealed anchors.
 - 6. Custom Paint Colors: Match Pantone color matching system.
 - 7. Color: As selected by Architect from manufacturer's full range.
 - 8. Tactile Characters: Characters and Grade 2 Braille raised 1/32 inch above surface with contrasting colors.
- C. Tactile and Braille Sign: Manufacturer's standard process for producing text and symbols complying with ADA-ABA Accessibility Guidelines and with ICC/ANSI A117.1. Text shall be accompanied by Grade 2 Braille. Produce precisely formed characters with square-cut edges free from burrs and cut marks; Braille dots with domed or rounded shape.
 - 1. Panel Material: Opaque acrylic sheet.
 - 2. Raised-Copy Thickness: Not less than 1/32 inch.
- D. Engraved Copy: Machine engrave letters, numbers, symbols, and other graphic devices into panel sign on face indicated to produce precisely formed copy, incised to uniform depth.
 - 1. Engraved Opaque Acrylic Sheet: Fill engraved copy with enamel.
 - 2. Face-Engraved Clear Acrylic Sheet: Fill engraved copy with enamel. Apply opaque background color coating to back face of acrylic sheet.
- E. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and are UV and water resistant for five years for application intended.

- 1. Custom Paint Colors: Match Pantone color matching system.
- 2. Color: As selected by Architect from manufacturer's full range.

2.3 ACCESSORIES

A. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

2.4 FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
 - 1. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
 - 2. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
 - 3. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

2.5 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 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.

2.6 ACRYLIC SHEET FINISHES

A. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and that are UV and water resistant for five years for application intended.

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 work.
- B. Verify that items, including anchor inserts, are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
 - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.
- B. Wall-Mounted Signs: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
 - 1. Mechanical Fasteners: Use nonremovable mechanical fasteners placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer.

3.3 CLEANING AND PROTECTION

A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

END OF SECTION 101400

 $\label{eq:manager} \mbox{Manatee County Supervisor of Elections} - \mbox{Phases 2 and 3} \\ \mbox{Bradenton, Florida}$

SECTION 102113 - PLASTIC TOILET COMPARTMENTS

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. Solid-plastic toilet compartments configured as toilet enclosures and urinal screens.
- B. Related Sections:
 - 1. Division 06 Section "Miscellaneous Rough Carpentry" for blocking.
 - 2. Division 10 Section "Toilet, Bath, and Laundry Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For toilet compartments. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Show locations of cutouts for compartment-mounted toilet accessories.
 - 2. Show locations of reinforcements for compartment-mounted grab bars.
 - 3. Show locations of centerlines of toilet fixtures.
- C. Samples for Verification: For the following products, in manufacturer's standard sizes unless otherwise indicated:
 - 1. Each type of material, color, and finish required for units, prepared on 6-inch- square Samples of same thickness and material indicated for Work.
 - 2. Each type of hardware and accessory.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of toilet compartment, from manufacturer.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Comply with requirements in GSA's CID-A-A-60003, "Partitions, Toilets, Complete."
- B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84, or another standard acceptable to authorities having jurisdiction, by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: 75 or less.
 - 2. Smoke-Developed Index: 450 or less.
- C. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities" and THE 2007 Florida Building Code for toilet compartments designated as accessible.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 SOLID-PLASTIC UNITS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Bradley Corporation; Mills Partitions.
 - 2. Marlite.
 - 3. Scranton Products.
- B. Toilet-Enclosure Style: Overhead braced and floor anchored. <u>Overhead-Bracing may not be installed</u> over the open area above the stall.
- C. Urinal-Screen Style: Wall hung and floor anchored.
- D. Door, Panel, Screen, and Pilaster Construction: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, no-sightline system, and with homogenous color and pattern throughout thickness of material.
 - 1. Integral Hinges: Configure doors and pilasters to receive integral hinges.
 - 2. Color and Pattern: One color and pattern in each room as selected by Architect from manufacturer's full range.
- E. Pilaster Shoes: Manufacturer's standard design; polymer.
 - 1. Polymer Color and Pattern: Matching pilaster.
- F. Brackets (Fittings):
 - 1. Full-Height (Continuous) Type: Manufacturer's standard design; polymer.

a. Polymer Color and Pattern: Matching panel.

2.2 ACCESSORIES

- A. Hardware and Accessories: Manufacturer's standard design, heavy-duty operating hardware and accessories.
 - 1. Material: Stainless steel.
 - 2. Hinges: Manufacturer's standard integral hinge for solid-polymer doors.
 - 3. Latch and Keeper: Manufacturer's standard surface-mounted latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible.
 - 4. Coat Hook: Manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories.
 - Door Bumper: Manufacturer's standard rubber-tipped bumper at out-swinging doors and entrancescreen doors.
 - 6. Door Pull: Manufacturer's standard unit at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible.
- B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish. Overhead-Bracing may not be installed over the open area above the stall.
- C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match the items they are securing, with theft-resistant-type heads. Provide sextype bolts for through-bolt applications. For concealed anchors, use stainless steel, hot-dip galvanized steel, or other rust-resistant, protective-coated steel.

2.3 FABRICATION

- A. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.
- B. Floor-Anchored Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at pilasters for structural connection to floor. Provide shoes at pilasters to conceal anchorage.
- C. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide, in-swinging doors for standard toilet compartments and 36-inch- wide, out-swinging doors with a minimum 32-inch- wide, clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
 - 1. Maximum Clearances:

a. Pilasters and Panels: 1/2 inch.b. Panels and Walls: 1 inch.

B. Overhead-Braced Units:

- 1. Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.
- 2. Overhead-Bracing may not be installed over the open area above the stall.
- C. Floor-Anchored Units: Set pilasters with anchors penetrating not less than 2 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Level, plumb, and tighten pilasters. Hang doors and adjust so tops of doors are level with tops of pilasters when doors are in closed position.

3.2 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors and doors in entrance screens to return doors to fully closed position.

END OF SECTION 102113

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

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. This Section includes the following:
 - Public-use washroom accessories.
 - 2. Childcare accessories.
 - 3. Underlayatory guards.
- B. Related Sections include the following:
 - 1. Division 08 Section "Mirrors" for frameless mirrors.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. 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. Features that will be included for Project.
 - 5. Manufacturer's warranty.
- B. Samples: Full size, for each accessory item to verify design, operation, and finish requirements.
 - 1. Approved full-size Samples will be returned and may be used in the Work.
- C. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.
 - 1. Identify locations using room designations indicated on Drawings.
 - 2. Identify products using designations indicated on Drawings.
- D. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.4 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.5 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 specified warranty period.
 - 1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.0312-inch minimum nominal thickness, unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.0359-inch minimum nominal thickness.
- C. Galvanized Steel Sheet: ASTM A 653/A 653M, with G60 hot-dip zinc coating.
- D. Galvanized Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
- G. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.
- H. ABS Plastic: Acrylonitrile-butadiene-styrene resin formulation.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. American Specialties, Inc.
 - 2. Bobrick Washroom Equipment, Inc. (Basis of design)
 - 3. Bradley Corporation.
- B. Toilet Tissue Dispenser (per Owner selection).
- C. Liquid-Soap Dispenser (per Owner selection).
- D. Sanitary Napkin Disposal, Bobrick B-270:
 - 1. Mounting: Surface Mounted.
 - 2. Material and Finish: Stainless steel, No. 4 finish (satin).
 - 3. Minimum Waste Capacity: 1 Gallon with reusable vinyl liner.

- E. Grab Bar, Bobrick B-6806 (3'-6" and 3'-0"):
 - 1. Mounting: Flanges with concealed fasteners.
 - 2. Material: Stainless steel, 0.05 inch thick.
 - a. Finish: Smooth, No. 4 finish (satin).
 - 3. Outside Diameter: 1-1/2 inches.
 - 4. Configuration and Length: As indicated on Drawings.
- F. Utility Hook, Bobrick B-6707:
 - 1. Description: Utility hook
 - 2. Mounting: Surface mounted.
 - 3. Material and Finish: Stainless steel, No. 4 finish (satin).
- G. Mirror Unit, Bobrick B-165 2436:
 - 1. Frame: Stainless-steel channel.
 - a. Corners: Welded and ground smooth.
 - 2. Hangers: Produce rigid, tamper- and theft-resistant installation, using method indicated below.
 - a. Wall bracket of galvanized steel, equipped with concealed locking devices requiring a special tool to remove.
 - 3. Size: 24" x 36".

2.3 CHILDCARE ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. American Specialties, Inc.
 - 2. GAMCO Specialty Accessories; a division of Bobrick Washroom Equipment, Inc.
 - 3. Koala Kare Products; a division of Bobrick Washroom Equipment, Inc.
- B. Diaper-Changing Station:
 - 1. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
 - a. Engineered to support a minimum of 250-lb static load when opened.
 - 2. Mounting: Surface mounted, with unit projecting not more than 4 inches from wall when closed.
 - 3. Operation: By pneumatic shock-absorbing mechanism.
 - 4. Material and Finish: HDPE in manufacturer's standard color.
 - 5. Liner Dispenser: Built in.

2.4 UNDERLAVATORY GUARDS

- A. Basis-of-Design Product: The design for accessories is based on products indicated. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
 - 1. Truebro, Inc.

B. Underlayatory Guard:

- 1. Description: Insulating pipe covering for supply and drain piping assemblies, that prevent direct contact with and burns from piping, and allow service access without removing coverings.
- 2. Material and Finish: Antimicrobial, molded-plastic, white.

2.5 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to method in ASTM F 446.

3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 102800