Kona Community Hospital

Exterior Building Repairs & Upgrades
Kealakekua, Hawai'i

PROJECT MANUAL

BID SET DOCUMENTS

March 27, 2026
Addenda #2 April 27, 2026

Prepared By:
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SECTION 00 0100 – TABLE OF CONTENTS

END OF TABLE OF CONTENTS

FOR THIS SECTION, USE UPDATED FORM THAT IS POSTED ONLINE

DOCUMENT 00 4213 - PROPOSAL FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 PROJECT

A. Hawaii Health Systems Corporation
Kona Community Hospital (Owner)
79-1019 Haukapila Street
Kealakekua, Hawai'i 96750

B. Attn: Yvonne S. Taylor, Senior Contracts Manager

C. Dear Yvonne:
The undersigned has carefully examined the attached plans and specifications marked “KONA COMMUNITY HOSPITAL, EXTERIOR BUILDING REPAIRS & UPGRADES"
and hereby proposes to furnish at his/her own expense all labor, materials, tools, and equipment necessary to construct in place complete, all the work and construction as shown and called for, all in accordance with the true intent and meaning of the plans and specifications, general conditions, contract and bonds, as follows:

1.2 BASE BID (STIPULATED SUM PRICING)

A. All work and construction as shown and called for to complete the Work for the stipulated sum of (all taxes shall be included in the lump sum amount(s)):

1. Bid Breakdown:

Division 01 - General Requirements:	$_____
Division 07 - Thermal and Moisture Protection:	$_____
Division 09 - Finishes:	$_____
Total Stipulated Sum Base Bid Total	$_____

2. Total Stipulated Sum Base Bid (in words): _____ Dollars.

B. Bidder further agrees to complete the Work as noted under the TOTAL STIPULATED SUM BASE BID above on or before the scheduled date and/or time frame as noted in the Request for Proposals (Competitive Sealed Proposals).

1. Total Number of Contract (Calendar) Days: ____

C. It is understood that the award of Contract will be made as noted in the Request for Proposals.

D. It is understood and agreed that the Owner reserves the right to reject any and/or all Bids and waive any defect when, in his/her opinion, such rejection or waiver will be for the best interest of the Owner.

E. The undersigned hereby agrees that the award of this Contract shall be conditioned upon funds being made available for this Project and further upon the right of the Owner to hold all bids received for a period of ninety (90) days of the opening thereof, during which time no Bid may be withdrawn.

F. Upon acceptance of the proposal by the Owner, the undersigned hereby agrees to enter into and execute a Contract for the same.

G. Bidder shall acknowledge receipt of any and all addenda issued by the Architect by recording the date of receipt of the respective addenda in the space provided as follows:

Addendum No. 1:	_____
Addendum No. 2:	_____
Addendum No. 3:	_____
Addendum No. 4:	_____
Addendum No. 5:	_____
Addendum No. 6:	_____

It is understood that failure to receive any such addenda shall not relieve the Bidder from any obligation under this Proposal as submitted.

H. Submit your Bid proposal as noted in the Request for Proposals.

I. Enclosed are:

1. Current (within the last 30 days) Certificate of Vendor Compliance.
2. Current (within the last 30 days) Certificate of Good Standing.
3. Evidence of the authority of the signing officer to submit bids on behalf of the Company.
4. KCH Required Documentation/Compliance Documents:

    a. W-9.
    b. Vendor Terms and Conditions (If any).
    c. Confidentiality Agreement (Exhibit H).
    d. General Excise License (Copy).
    e. General Contractor License (Copy).
    f. Any Other Applicable License (Copy).
    g. Letter from Surety Committing to Provide the Required Bonds.

J. Respectfully submitted, (Corporate Seal)

Name of Company:_____

By: _____

Title: _____

Contractor's License: _____

RME: _____

Federal ID: _____

G.E.T. License: _____

Date: _____

Address: _____

_____
_____

Telephone: _____

K. The following shall be added to and be considered a part of the Proposal:

1. All Bidders shall include in his Bid on this Form the names of each person or firm to be engaged by the Bidder on the Project as joint contractor or subcontractor and shall also indicate the name and scope of the work to be performed by such joint contractor or subcontractor. This list shall not be added to or altered without the written consent of the Architect. Failure to comply with the above shall be sufficient cause for rejection of the Bid. If no joint contractor or subcontractor is to be engaged, indicate "NONE".

Name, Address, Telephone No. of Joint Contractor or Subcontractor: (Complete Firm Name)	Nature and Scope of Work:

END OF SECTION

WORD DOCUMENT POSTED ONLINE*

DOCUMENT 00 4325 - SUBSTITUTION REQUEST FORM (DURING PROCUREMENT)

1.1 SUBSTITUTION REQUEST FORM

A. SUBSTITUTION REQUESTS WILL BE CONSIDERED NO LATER THAN 10 DAYS PRIOR TO BID SUBMITTAL

TO: Ferraro Choi and Assoc.
_____
_____
_____

SECTION NUMBER: _____PARAGRAPH: _____

SPECIFIED ITEM: _____

PROPOSED SUBSTITUTE: _____

B. Attach description, designation, catalog number, data sheets, other technical data, laboratory tests and samples as applicable for evaluation of proposed substitution. List features which are at variance with bidding document requirements. See page Article 1.2 for instructions.

C. If there is an engineered substitution, submit the engineered calculations and certification(s) that they have met or exceeded the Contract requirements. Failure to provide this information may result in a rejection of the substitution request.

D. State below why substitution should be considered for this Project and indicate in detail how substitution will affect guarantees, other trades, products, dimensions, etc. Attach additional pages as required to describe any change to Project. Use of acceptable substitutions is subject to the requirements of Section 016000 – Product Requirements.

_____

_____

_____

SUBMITTED BY:
(Firm Name) _____

(Address, City, State, Zip Code) _____

(Telephone) _____ (Name) _____

(Signature) _____ (Date)
_____

ARCHITECT'S REVIEW/COMMENTS

Remarks: _____

_____

Accepted
Accepted as Noted
Not Accepted
Received Too Late

By: _____

1.2 INSTRUCTIONS FOR SUBMITTING SUBSTITUTION

A. Submit a separate substitution request for each type of product or equipment.

B. For substitution requests which include a number of individual related items, such as hardware, paint, fixtures, etc., submit one request for the broad category of related items

1. Attach a summary sheet listing each individual item covered by the request, the item specified and its proposed substitution.
2. Identify the accompanying supporting data for each item by the letter or numeral designation used on the summary sheet.

C. Submit substitution requests with attached supporting data as follows:

1. Four (4) copies for products relating to Structural, Mechanical or Electrical.
2. Three (3) copies for other products.

D. Mark the words “Substitution Request” conspicuously on the outside of the envelope when submitting the request.

E. Substitution Requests submitted by other than the General Contractor will not be considered.

F. Substitution Requests not submitted on a copy of this form will not be considered.

G. Substitution Requests submitted by facsimile machine will not be accepted nor responded to.

END OF SECTION

SECTION 01 1100 - SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A. Summary

1. Section Includes:

a. Contract description.
b. Contract use of premises.
c. West Hawaii Facilities Director (WHFD) and/or Project Manager furnished / WHFD and/or Project Manager installed products.
d. WHFD and/or Project Manager furnished/contractor installed products.
e. Hospital occupancy.

2. Related Requirements:

a. Section 013000 - Administrative Requirements.
b. Section 013616 - Alteration Project Requirements.
c. Section 017000 - Execution and Closeout Requirements.

1.2 CONTRACT DESCRIPTION

A. The Project involves three primary areas of work on the Kona Community Hospital campus: (1) Removal of existing single-ply roofing system and reroof and (2) Removal, repair, and/or cleaning of exterior walls and refinish and (3) Cleaning of existing standing seam metal roofing.

B. The Work of the contract generally includes, but is not limited to the following:

1. Building 1: Reroof:

a. Demolition of existing single-ply (TPO) roofing system including insulation and coverboard where applicable.
b. Demolition of related flashing, boots and copings.
c. Temporary removal of equipment roof mounts.
d. Installation of new single-ply roofing system.

2. Buildings 1, 2, & 3: Exterior repair, cleaning and refinishing:

a. Patching of wall cracking.
b. Removal and reinstallation of parge coating where damaged.
c. Removal of existing paint where applicable.
d. Refinish with paint or elastomeric coating.
e. Removal of deficient sealant and backer rod, and install new around doors and windows where noted.

3. Buildings 1, 2, 3 & 4: Metal roof cleaning:

a. Cleaning of existing standing seam metal roofing.

4. Buildings 1 & 2: Exterior Design Enhancements:

a. Installation of new decorative metal panels on walls, columns, and soffits.
b. Installation of low guardrails with metal panels.
c. Installation of ceiling soffits and lighting.
d. Signage.

1.3 CONTRACTOR USE OF PREMISES

A. Limit the use of premises to allow for continued Hospital occupancy.

B. Emergency Building Exits During Construction: Must remain open and unblocked at all times. Maintain access for staff, patients, and public. Egress must be maintained and way finding signage during construction.

C. Construction Operations: Limited to areas noted on Drawings.

D. Staging and Parking:

1. Staging area and limited contractor employee parking will be made available on site. Contractor and vendor parking is designated. Any new parking arrangements require prior approval by the WHFD and/or Project Manager.

E. Time Restrictions for Performing Work:

1. See Proposal Form and coordinate w/ WHFD and/or/or Project Manager. Submit written notice a minimum three days in advance to confirm working hours. Any work performed outside of the normal working hours shall be pre-approved by the WHFD and/or Project Manager.

F. Cooperate with Hospital to minimize conflict and to facilitate Hospital's operations. Coordinate operations with WHFD and/or Project Manager.

G. Access to adjacent floors must be approved in advance by the WHFD and/or Project Manager. Submit written notice not less than seven days in advance of intended work on adjacent floors.

H. Do not close or obstruct roadways without first consulting with the WHFD and/or Project Manager. Conduct operations with minimum interference to public or private roadways.

I. Maintain vital services (as defined by the WHFD and/or Project Manager) with the minimum of interruption. Outages and interruptions must be approved in advance by the WHFD and/or Project Manager. Submit written notices of outages and interruptions not less than seven days in advance.

J. Contractor's Personnel:

1. It is preferred that contractors park off site and carpool to hospital.
2. Contractor's personnel may use the hospital cafeteria.
3. Contractor's personnel may use the hospital's restrooms.
4. Smoking is not permitted anywhere on KCH property. Consumption of food and beverages will not be permitted on the premises except in designated areas.

5. Playing of radios will not be permitted.
6. Shall be properly attired for work. (No tank tops, cut-off jeans, slippers, etc.)
7. Shall conduct themselves with decorum and courtesy toward staff, patients, and public.
8. Shall not use loud and offensive language.
9. Shall read and sign the Contractor's Guidelines Handbook.

K. Construction Zone Accessibility Requirements:

1. General: Hawaii Revised Statutes (HRS) 103-05 requires this Project to conform to the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
2. Ensure accessible routes to emergency entrances and exits to and from accessible parking public pedestrian routes during the construction period as required by ADAAG 4.1.1(4).
3. Temporary buildings and facilities that are not of permanent construction but are extensively used or are essential for public use for a period of time shall be accessible. Egress must be maintained and way finding signage during construction.
4. Provide temporary safe pedestrian passageway around a construction site.

    a. Areas that are used only as work areas shall be designed and constructed so that individuals with disabilities can approach, enter, and exit the areas.
    b. These guidelines do not require that any areas used only as work areas be constructed to permit maneuvering within the work area or be constructed or equipped (i.e., with racks or shelves) to be accessible.
    c. Follow OSHA guidelines concerning scaffolding and debris and dust protection.

1.4 WHFD AND/OR PROJECT MANAGER FURNISHED/WHFD AND/OR PROJECT MANAGER INSTALLED PRODUCTS

A. Items noted "OFOI" (WHFD and/or Project Manager Furnished/WHFD and/or Project Manager Installed) will be furnished and installed by the WHFD and/or Project Manager, including but not limited to:

1. Select medical equipment as noted on the drawings.
2. Select toilet accessories as noted on the drawings.
3. Movable furniture.

B. Hospital's Responsibilities:

1. Return Hospital reviewed shop drawings, product, data and samples, to Contractor.
2. If requested by the Contractor, assist the Contractor with inspection of select equipment and/or accessories prior to installation.

C. Contractor's Responsibilities:

1. Review WHFD and/or Project Manager's provided shop drawings, product data, and samples.
2. Provide any necessary utility roughs and backing, and install in accordance with manufacturer's instructions.
3. Arrange and pay for product delivery to site.
4. Submit claims for transportation damage and replace damaged, defective or deficient items.
5. Arrange for manufacturers' warranties, inspections and service.

1.5 HOSPITAL OCCUPANCY

A. Hospital will remain operational during entire period of construction for the conduct of normal operations.

B. Contractor is to coordinate the work and details within each phase, to minimize disruption to WHFD and/or Project Manager's operation. Advanced notification of a minimum of one week for disruption due to noise and other construction activity is required as well as posting of signage in advance to advise occupants of such disruption.

C. Provide dust and noise barriers where specified under other portions of the contract documents. Follow ICRA procedures during construction, i.e., Policy #125-54 as attached. Walk off mats at site entrance shall be changed as needed. HEPA filtration units are to be utilized 24 hours per day throughout the construction process. Complete ISLM check sheet daily.

D. Schedule the Work, and cooperate with Hospital to minimize conflict with work involving dust and noise and odor.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

note:

SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Section includes administrative and procedural requirements for substitutions.

B. Related Requirements:

1. Section 01 60 00 - Product Requirements, for requirements for submitting comparable product submittals for products and.listed manufacturers.

1.2 REFERENCES

A. Definitions:

1. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.

a. 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.

1.3 ACTION SUBMITTALS

A. Substitution Requests: Submit documentation identifying 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 form acceptable to Architect, at end of this Section.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
b. Detailed comparison of significant qualities of proposed substitutions 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, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
c. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
d. Samples, where applicable or requested.
e. Certificates and qualification data, where applicable or requested.
f. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.

g. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
h. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
i. Detailed comparison of Contractor's construction schedule using proposed substitutions 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.
j. Cost information, including a proposal of change, if any, in the Contract Sum.
k. 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.
l. 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.

1.4 QUALITY ASSURANCE

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

1.5 PROCEDURES

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

1.6 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on 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:

a. 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.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 SUBSTITUTION REQUEST FORM

A. Project:_____ Substitution Request Number: _____ .

B. To: _____ From: _____ .

C. Re: _____ Date: _____ .

D. Specification Title: _____ Description: _____ .

E. Section: _____ Page: _____Article/Paragraph: _____ .

F. Proposed Substitution:_____ .

G. Manufacturer:_____ Address: _____ Phone: _____ .

H. Trade Name: _____ Model No. _____.

I. For Cause Reason: __Product Unavailable; __Regulatory Changes; __Warranty Terms Unavailable;
__ Changed Project Conditions; __Other (provide/attach clarifying description for selected reason).

J. Attached data includes product description, specifications, drawings, and performance and test data adequate for evaluation of the request: applicable portions of the data are clearly identified.

K. Attached data also includes a description of changes to the Contract Documents that the proposed substitutions will require for its proper installation.

L. The Undersigned certifies:

1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified product.
2. Will provide the same warranty for the Substitution as for the specified Product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
4. Waive claims for additional costs or time extension that may subsequently become apparent.
5. Will reimburse Owner and Architect/Engineer for review or redesign services associated with substitution.

M. Submitted By: _____ .

N. Signed By: _____ .

O. Firm: _____ .

P. Address: _____ .

Q. Telephone:_____Email: _____ .

R. A/E's REVIEW AND ACTION.

1. ___ Submission approved - Make submittals in accordance with Specification Section 012500.
2. ___ Submission approved as noted - Make submittals in accordance with Specification Section 012500.
3. ___Submission rejected - Use specified materials.
4. ___Submission request received too late - Use specified materials.

S. Signed by: _____ Date:_____.

T. Supporting Data Attached: ___Drawings ___Product Data ___Samples ___Tests ___ Reports ___Other.

END OF SECTION

SECTION 01 2600 - CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

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

B. Related Requirements:

1. Section 01 2500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.2 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.

1.3 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. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
2. Within time agreed to subsequent to 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 forms acceptable to Owner and Architect.
f. Cost Breakdown: Form and amount of detail acceptable to Owner and Architect.

1) Provide complete breakdown, with backup (purchase orders, invoices, etc.) on business letterheads for all parts and costs associated with changes.

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 Owner and 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 Section 01 25 00 "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 Owner and Architect.
8. Cost Breakdown: Form and amount of detail acceptable to Owner and Architect.

    a. Provide complete breakdown, with backup (purchase orders, invoices, etc) on business letterheads for all parts and costs associated with changes.

1.4 CHANGE ORDER PROCEDURES

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

B. The following documents will be used. Sample forms at end of Section.

C. Request for Information: Standard Contractor form. A request for information shall be used by the Contractor to the Prime Consultant to request solutions to problems which are discovered during construction, to request drawings and cost and/or schedule impacts in the Request for Information.

D. Instruction Notice: Attachment 1, standard form.

1. Instruction Notice will be issued by the Prime Consultant for instructions to the Contractor which do not involve a change in the Contract Sum or construction period.
2. Instruction Notice authorizes the Contractor to proceed at once with the instruction included therein.
3. Instruction Notice which does affect the Contract Sum or construction period must have written authorization by the Owner’s Project Manager. Such instruction shall have the note “Change Order to Follow” and then be followed with a Quotation Request, cross referenced to the Field Order.
4. Instruction Notice will be distributed as follows:

    a. Two copies to Contractor.
    b. One copy to the Prime Consultant.
    c. One copy to each appropriate Consultant.
    d. One copy to WHFD and/or Project Manager.

E. Quotation Requests: Attachment 2, standard Prime Consultant form.

1. Proposed changes to the Contract will be initiated by the Prime Consultant in the form of a Quotation Request.
2. A Quotation Request, indicating the party suggesting the change, will clearly describe the proposed Contract variation, accompanied by the required drawings, if necessary.
3. Construction work shall not proceed on the strength of a Quotation Request only.
4. Quotation Requests will be distributed as follows:

    a. Two copies to Contractor.
    b. One copy to Prime Consultant.
    c. One copy to each appropriate Consultant.
    d. One copy to Owner's Project Management.

5. The Contractor shall respond to the Quotation Request within the time stated on the form.

F. Change Proposal. Standard Contract Form.

1. This form shall be issued by the Contractor for any claims he may have and in response to a Quotation Request.
2. The Change proposal shall include a description of the work and the requested change to the Contract sum and construction time.
3. All supporting documents, materials and subcontract quotations, time sheets, labor estimates, etc., shall be itemized and attached to the Change Proposal as necessary for proper checking by the Prime Consultant, Consultants and Owner's Project Manager.
4. Change proposals, if acceptable, will be signed by the WHFD and/or Project Manager and Prime Consultant with one executed copy returned to Contractor. The Contractor shall thus have the authority to proceed with the work and Change Order will follow.

G. Change Order. Attachment 3, standard form.

1. This document is issued to the Contractor as an instruction for him to make a change to the work of the contract Documents.
2. Change Order documents are prepared by the Prime Consultant and countersigned by the Owner and Contractor.
3. Approved Change orders record the following information:

    a. Cross-reference to Change Proposal.
    b. Summarized description of change in work required.
    c. Change in completion date.
    d. Change in Contract sum.
    e. Identification of party/individual initiating change.

H. Record of Variations: Variations in construction from the plans and specifications shall be recorded by the Contractor as required in Division 1. These variations shall be brought to the attention of the Prime Consultant and WHFD and/or Project Manager by the Contractor.

I. Timeliness of Processing: Instruction notices, Quotation Requests and Change Proposals will be processed and one copy provided the WHFD and/or Project Manager the same day the document is prepared.

J. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract Time as provided in the Contract Documents.

K. Maintained detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction 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 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

3.1 SAMPLE FORMS - ATTACHMENTS

A. Attachment 1 Option:

INSTRUCTION NOTICE

INSTRUCTION NOTICE NO:

DATE: **PROJECT NO:**

PROJECT: Kona Community Hospital
Outpatient Oncology Services Clinic

CONTRACTOR:

Reference:

- ☐ **Specifications:**
- ☐ **Drawings:**
- ☐ **Other:**

YOU ARE HEREBY DIRECTED TO PROMPTLY EXECUTE THIS INSTRUCTION NOTICE WHICH REPRESENTS THE CONTRACT DOCUMENTS OR ORDERS MINOR CHANGES IN THE WORK.

If you consider that a change in Contract Sum or Contract Time is required, submit your itemized proposal to the Prime Consultant immediately and before proceeding with the work. If your proposal is found to be satisfactory and in proper order, this Instruction Notice will be superseded by a Change Order.

COPIES TO:

- ☐ **WHFD AND/OR PROJECT MANAGER**
- ☐ **Contractor**
- ☐ **Prime Consultant**
- ☐ **Structural**
- ☐ **Mechanical**
- ☐ **Electrical**
- ☐ **Civil**
- ☐ **Landscape**
- ☐ **Others**

B. Attachment 2 Option:

QUOTATION REQUEST

QUOTATION REQUEST NO:

DATE: **PROJECT NO:**

PROJECT: Kona Community Hospital
Outpatient Oncology Services Clinic

CONTRACTOR:

Submit a fully itemized quotation for the inclusion of the following changes into the contract. This is not a Change Order, a Construction Change Directive, nor an Instruction to proceed with the work herein.

REQUEST ORIGINATED BY:

DATE QUOTATION REQUIRED BY:

COPIES TO:

- ☐ **WHFD AND/OR PROJECT MANAGER**
- ☐ **Contractor**
- ☐ **Others**

C. Attachment 3 Option:

CHANGE ORDER

CHANGE ORDER NO:

DATE: **PROJECT NO:**
PROJECT: Kona Community Hospital
Outpatient Oncology Services Clinic
CONTRACTOR:

Original Contract Sum was:
Net changes by previously authorized Change Orders: $
Contract Sum prior to this Change Order was: $
Contract sum will be (increased) (decreased) (unchanged) by this Change Order $
New Contract Sum including this Change Order will be: $
The Contract Time will be (increased) (decreased) (unchanged) by days The date of Substantial Completion as of the date of this Change Order is:

PRIME CONSULTANT: **WHFD AND/OR PROJECT MANAGER:**
CONTRACTOR:

By: _____ **Date:** _____
Approved By: _____ **Date:** _____
Approved By: _____ **Date:** _____

END OF SECTION

SECTION 01 2900 - PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Requirements:

1. Section 012600 - Contract Modification Procedures, for administrative procedures for handling changes to the Contract.
2. Section 017000 - Execution and Closeout Requirements.

1.2 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.

B. Owner: Interchangeable with Hospital Construction Project Manager and WHFD.

C. Architect: Interchangeable with Prime Consultant.

1.3 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.

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 a printed schedule of AIA Form G703- Application and Certificate for Payment Continuation Sheet. Contractor’s standard form or electronic media printout will be acceptable.
3. Submit the schedule of values to Architect through the Hospital's Construction Management Representative at earliest possible date, but no later than fifteen (15) days after date of Owner Contractor Agreement; no later than seven days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use 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. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
4. 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.
5. Identify site mobilization and bonds and insurance.
6. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
7. Include within each line item, a direct proportional amount of Contractor’s overhead and profit.
8. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

B. Payment Application Times: Submit Application for Payment to Architect and Hospital Technical Representative by the 5th of the month that floows. The period covered by each Application for Payment is one month, ending on the last day of the month.

1. The State of Hawaii does its best to pay within 30 days.
2. Payment Application Times: Each progress payment shall be submitted monthly.

C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

1. Arrange the schedule of values in tabular form with separate columns to indicate the following for each items 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 affected value.

g. Dollar value of the following, as percentage of the Contract Sum to nearest on-hundredth percent, adjusted to total 100 percent.

1) Labor.
2) Materials.
3) Equipment.

2. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of two percent of the Contract Sum.

a. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling two percent of the Contract Sum and subcontract amount.

3. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
4. Provide 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.
5. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
6. 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.
7. Each item in the schedule of values and Application for Payments 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-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor’s option.
b. The Prime Consultant will return incomplete applications, including those without the contract number, without action.

8. 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.

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 on-site, but not yet installed. Materials or equipment stored off-site will not be paid for until on site.

1. 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.
2. Provide summary documentation for stored materials indicating the following:

    a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
    b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
    c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.

F. Transmittal: Submit PDF signed and notarized copies of each Application for Payment to Architect and Hospital Construction Project Manager by electronic delivery (email) ensuring receipt. 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.
2. One copy can be transmitted via e-mail to Architect for preliminary review.

G. Rain Days and Construction Schedule: Include rain days being claimed for the current application period and updated Construction Schedule with each application for payment.

1. Rain day claims made for previous application periods will not be accepted.

H. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment, for Contractor covering current application period, and subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit unconditional partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item. Forms with other amounts will not be accepted and will delay review of application. Application review time will not begin before corrected form received.

    a. Use of Contractor's form, which is acceptable to Architect, is acceptable.

2. When an application shows completion of an item, submit conditional final or full waivers.
3. WHFD and/or Project Manager 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 executed waivers of lien on forms acceptable to Owner.

I. Waiver of Mechanic’s Lien: With each Application for Payment, submit waivers of mechanic’s lien from subcontractors, sub-contractors, 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. WHFD and/or Project Manager reserves the right to designate which entities involved in the Work must submit waivers.
4. Submit final Application for Payment with or proceeded 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 executed waivers of lien forms, acceptable to Owner.

J. 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. Products list (preliminary if not final).
5. Schedule of unit prices.
6. Submittal schedule (preliminary if not final).
7. List of Contractor’s staff assignments.
8. List of Contractor's principal consultants.
9. Copies of building permits.
10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
11. Initial progress report.
12. Report of preconstruction conference.
13. Certificates of insurance and insurance policies.
14. Performance and payment bonds.
15. Data needed to acquire Owner’s insurance.

K. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as approved by the Hospital Construction Project Manager.

1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

L. Application for Payment at Substantial Completion: After Architect issues 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 Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

M. Final Payment Application: After completing Project closeout requirements, 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 G706.
5. AIA Document G706A.
6. AIA Document G707.
7. Evidence that claims have been settled.
8. Final liquidated damages settlement statement.
9. 9. Alternate forms may be utilized with approval from the WHFD and/or Project Manager & Contracts Manager.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 3000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. General administrative requirements.

B. Preconstruction meeting.

C. Site mobilization meeting.

D. Progress meetings.

E. Construction progress schedule.

F. Contractor's weekly reports.

G. Progress photographs.

H. Submittals for review, information, and project closeout.

I. Number of copies of submittals.

J. Requests for Interpretation (RFI) procedures.

K. Submittal procedures.

1.2 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: General product requirements.

B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.

1.3 DEFINITIONS

A. Owner: Interchangeable with Hospital Construction Project Manager and WHFD.

B. Architect: Interchangeable with Prime Consultant.

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1.4 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

B. Make the following types of submittals to Architect:

1. Requests for Interpretation (RFI).
2. Requests for substitution.
3. Shop drawings, product data, and samples.
4. Test and inspection reports.
5. Design data.
6. Manufacturer's instructions and field reports.
7. Applications for payment and change order requests.
8. Progress schedules.
9. Coordination drawings.
10. Correction Punch List and Final Correction Punch List for Substantial Completion.
11. Closeout submittals.

1.5 GENERAL COORDINATION PROCEDURES

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. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operations.

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 with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

C. 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.

1. Prepare similar memoranda for Owner and separate contractors of coordination of their Work is required.

D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and (activities of other contractors) 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. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation of conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.

E. 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. See other Sections for disposition of salvaged materials that are designed as Owner's property.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRECONSTRUCTION MEETING

A. The WHFD and/or Project Manager will schedule and conduct a preconstruction conference before starting construction, at a time convenient to the Hospital, Contractor, and Prime Consultant, but no later than 15 days after execution of the Agreement.

B. Attendance Required:

1. Owner.
2. Architect.
3. Contractor.
4. Architect's consultants.
5. Contractor's superintendent.
6. Major subcontractors.
7. Suppliers and other concerned parties.

C. Agenda:

1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
5. Submission of initial Submittal schedule.
6. Designation of personnel representing the parties to Contract and Architect.

7. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
8. Scheduling.
9. Use of the premises.
10. Work restrictions.
11. Working hours.
12. Owner’s occupancy requirements.
13. Security.

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

3.2 SITE MOBILIZATION MEETING

A. Attendance Required:

1. Contractor.
2. Owner.
3. Architect.
4. Contractor's superintendent.
5. Major subcontractors.

B. Agenda:

1. Use of premises by Owner and Contractor.
2. Owner's requirements.
3. Construction facilities and controls provided by Owner, if applicable.
4. Temporary utilities provided by Owner, if applicable.
5. Survey and building layout.
6. Security and housekeeping procedures.
7. Progress cleaning.
8. First aid.
9. Schedules.
10. Critical work sequencing and long-lead items.
11. Application for payment procedures.
12. Procedures for testing.
13. Procedures for maintaining record documents.
14. Requirements for start-up of equipment.
15. Inspection and acceptance of equipment put into service during construction period.

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

3.3 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the work at weekly intervals, unless different interval is agreed to with Architect and Owner.

1. It is preferred that a standing meeting day/time is planned at the commencement of the project.

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

C. Attendance Required:

1. Contractor.
2. Owner.
3. Architect.
4. Special consultants, when required.
5. Contractor's superintendent.
6. Subcontractors.

D. Agenda:

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

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

3.4 CONSTRUCTION PROGRESS SCHEDULE

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

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

C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.

1. Include written certification that major contractors have reviewed and accepted proposed schedule.

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

E. Submit updated schedule with each Application for Payment.

3.5 WEEKLY CONSTRUCTION REPORTS

A. Include only factual information. Do not include personal remarks or opinions regarding operations and/or personnel.

B. Prepare a daily construction report recording the following information concerning events at Project site and project progress:

1. Date.
2. High and low temperatures, and general weather conditions.
3. List of subcontractors at Project site.
4. Approximate count of personnel at Project site.
5. Safety, environmental, or industrial relations incidents.
6. Meetings and significant decisions.
7. Unusual events (submit a separate special report).
8. Stoppages, delays, shortages, and losses. Include comparison between scheduled work activities (in Contractor's most recently updated and published schedule) and actual activities. Explain differences, if any. Note days or periods when no work was in progress and explain the reasons why.
9. Emergency procedures.
10. Directives and requests of Authority(s) Having Jurisdiction (AHJ).
11. Testing and/or inspections performed.
12. Signature of Contractor's authorized representative.

3.6 PROGRESS PHOTOGRAPHS

A. Submit photographs with each application for payment, taken not more than 5 days prior to submission of application for payment.

B. Photography Type: Digital; electronic files.

3.7 REQUESTS FOR INFORMATION (RFI)

A. Definition: A request seeking one of the following:

1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.

B. General: Immediately of discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified to WHFD and/or Project Manager.

1. All RFIs must be submitted directly by the Contractor of record. Prime Consultant will return RFI submitted to Prime Consultant 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.

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

D. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.

1. Prepare a separate RFI for each specific item.

    a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
    b. Do not forward requests which solely require internal coordination between subcontractors.

2. Prepare on AIA Document G716 or on a Form, in a format and with content acceptable to Architect.
3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.

E. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.

1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:

    a. Approval of submittals (use procedures specified elsewhere in this section).
    b. Approval of substitutions (see Section - 016000 - Product Requirements).
    c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
    d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
    e. Requests for coordination information already indicated in the Contract Documents.
    f. Requests for interpretation of Architect’s actions on submittals.

3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response.
4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response.

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

F. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.

1. Official Project name and number, and any additional required identifiers established in Contract Documents.
2. Architect's, and Contractor's names.
3. Discrete and consecutive RFI number, and descriptive subject/title.

4. Issue date, and requested reply date.
5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.

G. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.

H. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.

1. Indicate current status of every RFI. Update log promptly and on a regular basis.
2. Note dates of when each request is made, and when a response is received.
3. Highlight items requiring priority or expedited response.
4. Highlight items for which a timely response has not been received to date.
5. Identify and include improper or frivolous RFIs.

I. Review Time: Architect will respond and return RFIs to Contractor within 14 calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.

1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.

J. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.

1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.8 SUBMITTAL SCHEDULE

A. Submit to Architect for review a schedule for submittals in tabular format.

1. Submit at the same time as the preliminary schedule.
2. Coordinate with Contractor's construction schedule and schedule of values.

3. Format schedule to allow tracking of status of submittals throughout duration of construction.
4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.

    a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

6. Submit as part of the Monthly Report required by the Owner-Contractor Agreement.

B. Product Data, Schedules, Shop Drawings and Other Printed Materials: Submit the number of copies which the Contractor requires, plus copies for the following:

1. One copy: Prime Consultant.
2. One copy: WHFD and/or Project Manager.
3. One copy: Hospital Construction Project Manager.
4. Copies as required from consultants.

C. Samples: Submit the number of samples which the Contractor requires plus one for WHFD and/or Project Manager and Contracts Manager.

3.9 SUBMITTALS FOR REVIEW

A. Procedures:

1. Transmit each submittal with AIA Form G810 or project Architect’s accepted transmittal form

    a. Identify whether submittal is an action submittal or informational submittal.
    b. Submit number and type of documents indicated in this Section.

2. Sequentially number the transmittal form. Reverse submittals with original number and a sequential alphabetical suffix.
3. Identify Project Contractor, Subcontractor or supplier, pertinent drawing and detail number, and specification section number, as appropriate.
4. Apply Contractor’s wax seal, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
5. Schedule submittals to expedite the Project, and deliver to Prime Consultant at business address. Coordinate submission of related items.
6. For each submittal for review, allow 10 days excluding delivery time and from the contractor.
7. Identify variations from Contract Documents and Product of system limitations which may be detrimental to successful performance of the completed Work.
8. Submit all items relating to color selection at one time. Color selections will not be made until all color related submittals have been received.
9. Provide space for Contractor, Prime Consultant, and Consultants review stamps or initials.
10. Review and Resubmission of Submittals:

a. The Prime Consultant will review the submittal and stamp or initial it with indication of action as appropriate. Prime Consultant will retain one copy or and furnish one copy to Contractor. Consultants will retain one copy.
b. Submittals returned marked “resubmit” or “rejected”. Make corrections and resubmit.

1) Direct specific attention on resubmittals to revision other than those requested by the Prime Consultant on previous submittals.
2) Make shop drawing corrections on the original drawing and print.

c. Submittals returned with markings or comments and marked “confirm”. Submit a letter indicating acceptance of comments and stating that Contractor will comply with marks and comments.
d. Submittals returned marked “No Exceptions Taken”. Submit number of copies mechanical and electrical items with Contractor.

11. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
12. Submittal is not requested will not be recognized or processed.

B. When the following are specified in individual sections, submit them for review:

1. Product data.
2. Shop drawings.
3. Samples for selection.
4. Samples for verification.

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

1. Identify options requiring selection by Architect.

D. Samples will be reviewed for aesthetic, color, or finish selection. Color samples shall be physical materials and paint chips. Photo images or website references will not be accepted.

E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017000 - Execution and Closeout Requirements.

3.10 SUBMITTALS FOR INFORMATION

A. Subcontract List: Prepare a written summary (provided in the Bid Proposals Form) 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. Included the following information in tabular form:

1. Name, address and telephone number of company performing subcontract or supplying products.
2. The particular work to be performed by subcontractor.

B. Key personnel Names: Within 7 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 e-mail addresses. Provide names, addresses and telephone numbers of individuals assigned as alternates 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.

C. When the following are specified in individual sections, submit them for information:

1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Other types indicated.

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

3.11 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017000 - Execution and Closeout Requirements:

1. Project record documents.
2. Operation and maintenance data.
3. Warranties.
4. Bonds.
5. Other types as indicated.

D. Final Property Survey.

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

3.12 NUMBER OF COPIES OF SUBMITTALS

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

B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.

1. After review, produce duplicates.
2. Retained samples will not be returned to Contractor unless specifically so stated.

3.13 SUBMITTAL PROCEDURES

A. General Requirements:

1. Use a separate transmittal for each item.
2. Transmit using Architect approved form.
3. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
4. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
5. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.

    a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.

6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.

    a. Send submittals in electronic format via email to Architect.

7. Schedule submittals to expedite the Project, and coordinate submission of related items.

    a. For each submittal for review, allow 14 calendar days excluding delivery time to and from the Contractor.
    b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 calendar days.
    c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 calendar days.

8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
9. Submittal shall be specific to Project. Remove or clearly note items or options on pages that are being submitted for the Project, and items or options that are not part of the submittal or Project. Submittals not following this requirement will be returned without action.
10. Provide space for Contractor and Architect review stamps.
11. When revised for resubmission, identify all changes made since previous submission.
12. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
13. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
14. Submittals not requested will be recognized, and will be returned "Not Reviewed".

B. Product Data Procedures:

1. Submit only information required by individual specification sections.

    a. Clearly mark each copy to identify each applicable product, model, option, and pertinent data for the products or systems to be provided. Supplement manufacturers’ standard data to provide information unique to this Project.
    b. Highlighting will not be acceptable.

c. Indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

2. Collect required information into a single submittal.
3. Submit concurrently with related shop drawing submittal.
4. Do not submit (Material) Safety Data Sheets for materials or products.
5. After review distribute in accordance with the Submittal Procedures.

C. Samples

1. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
2. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Prime Consultant selection.

a. Provide custom color samples where requested.

3. Reviewed samples which may be used in the Work are indicated in individual specification sections.

D. Shop Drawing Procedures:

1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
2. Use of reproductions of Contract Documents in digital data form to create shop drawings is only permitted if approved by Architect prior to submitting.
3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

E. PROPOSED PRODUCTS LIST

1. Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
2. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

F. Samples Procedures:

1. Transmit related items together as single package.
2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.14 SUBMITTAL REVIEW

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

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

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

1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.

D. Architect's and consultants' actions on items submitted for review:

1. Authorizing purchasing, fabrication, delivery, and installation:

a. "Approved", or language with same legal meaning.
b. "Approved as Noted, Resubmission not required", or language with same legal meaning.

1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.

c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.

1) Resubmit corrected item, with review notations acknowledged and incorporated. Resubmit separately, or as part of project record documents.
2) Non-responsive resubmittals may be rejected.

2. Not Authorizing fabrication, delivery, and installation:

a. "Revise and Resubmit".

1) Resubmit revised item, with review notations acknowledged and incorporated.

b. "Rejected".

1) Submit item complying with requirements of Contract Documents.

E. Architect's and consultants' actions on items submitted for information:

1. Items for which no action was taken:

a. "Received" - to notify the Contractor that the submittal has been received for record only.

2. Items for which action was taken:

a. "Reviewed" - no further action is required from Contractor.

END OF SECTION

SECTION 01 3516 - ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Special procedures for alteration work.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate Work of this Section with other work.

1.3 FIELD CONDITIONS

A. Existing Conditions: Verify field measurements before fabrication. Show field measurements on Shop Drawings.

B. Photo document existing conditions prior to commencing demolition, and as work proceeds.

1. Submit documentation to Architect on regular basis.

PART 2 PRODUCTS

2.1 SALVAGED MATERIALS

A. Salvage sufficient quantities of cut or removed material to replace damaged work of existing construction, when materials not readily obtainable on current market.

2.2 PRODUCTS FOR PATCHING AND EXTENDING WORK

A. New Materials: Match existing products and work for patching and extending work.

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

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that demolition is complete, and areas are ready for installation of new Work.

B. Beginning of restoration Work means acceptance of existing conditions.

3.2 PREPARATION

A. Cut, move or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

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

C. Remove debris and abandoned items from area and from concealed spaces.

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

E. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate duct work and piping to prevent condensation in exposed areas.

F. Do not demolish, chip, or penetrate existing structural members without the expressed approval of the Prime Consultant.

G. Perform cutting and removal work to remove minimum necessary, and in a manner to avoid damage to adjacent work and provide proper surfaces to receive installation of repair and new Work.

3.3 INSTALLATION

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

B. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to original or specified condition as appropriate.

C. Refinish and/or finish visible existing surfaces to remain to specified condition for each material, with a neat transition to adjacent finishes.

3.4 TRANSITIONS

A. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patched Work to match existing adjacent Work in texture and appearance.

B. Cut finish surfaces such as masonry, tile, plaster, or metals by methods to terminate surfaces in a straight line at a natural point of division.

C. When finished surfaces are cut so that a smooth transition with new Work is possible, terminate existing surface along a straight line at a natural line of division. If a straight line cannot be achieved, install a reveal or other joint, acceptable to Architect, to create a straight line. Provide trim or sealant appropriate to finished surface, subject to approval of Architect and Hospital's Representative.

3.5 ADJUSTMENTS

A. Where a change of plane 1/4 inch or more occurs, submit recommendation for providing a smooth transition for the WHFD and/or Project Manager review.

B. At penetrations of fire-rated construction, completely seal voids with fire rated, fire resistant material, full thickness of the construction element. All remaining small gaps shall be properly sealed with firestopping.

3.6 REPAIR OF DAMAGED SURFACES

A. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

B. Repair substrate prior to patching finish.

3.7 FINISHES

A. Finish surfaces as specified in individual Specification Sections.

B. Finish patches to product uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersection with written approval of the Architect, WHFD and/or Project Manager review.

3.8 CLEANING

A. In addition to cleaning as specified in these specifications, wet mop owner- occupied areas that are utilized or accessed, daily utilizing hospital's EPA approved disinfectant. Remove and replace soiled walk off (sticky) mats daily.

B. Clean spillage, over-spray, and dust in Owner- occupied areas immediately.

END OF SECTION

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Quality Assurance.
2. Quality control and control of installation.
3. Delegated design services.
4. Tolerances.
5. References.
6. Labeling.
7. Testing and inspecting services.
8. Manufacturer field services.
9. Test reports and certifications.

B. Related Requirements:

1. Section 013000 - Administrative Requirements.
2. Section 016000 – Product Requirements.

1.2 REFERENCES

A. Conform to reference standard by date of issue current on date for receiving bids.

B. Obtain copies of standards when required by Contract Documents.

C. Should specified reference standards conflict with Contract Documents, request clarification from Prime Consultant before proceeding.

D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.3 DEFINITIONS

A. Owner: Interchangeable with Hospital Construction Project Manager and WHFD.

B. Architect: Interchangeable with Prime Consultant.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturers: Experienced firms with sufficient production capacity to produce units required.

2. Fabricators and Finish Applicators: Experienced firms with sufficient production capacity to produce units required.
3. Installers: Experienced firms or individuals with sufficient manpower to produce Work required.
4. Testing Agencies: Experienced firms with sufficient capacity and necessary equipment to perform tests required, following one of the following programs.

    a. A nationally recognized testing laboratory per 29 CFR 1910.7.
    b. Accredited agency per NIST National Voluntary Laboratory Accreditation Program.

5. Licensed Professionals: Experienced individuals, licensed or otherwise legally qualified to practice in the jurisdiction where the Project is located.

1.5 QUALITY CONTROL AND CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Follow specified reference standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements include higher standards or more precise workmanship.

C. Measure existing construction as needed for fabrication and execution. No changes to Contract Sum or Contract Time will be allowed for differences between Drawing dimensions and field measurements where no measurements were performed.

D. Comply fully with manufacturers' instructions, including each step-in sequence.

E. Should manufacturers' instructions conflict with Contract Documents, request clarification from Prime Consultant before proceeding

F. Perform work by persons qualified to produce workmanship of specified quality.

G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.6 DELEGATED DESIGN SERVICES

A. Where delegated design is specified, follow specified performance and design criteria.

1. If criteria are not sufficient, submit RFI for needed criteria.

1.7 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Follow manufacturer tolerances. When manufacturer tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.8 REFERENCE STANDARDS

A. Abbreviations and Acronyms: Names of trade associations, standards generating organizations, governing authorities, and other entities are frequently referred to in Contract Documents by acronyms and abbreviations. Request explanation of unknown terms from Architect.

B. For products or workmanship specified by association, trade, or other consensus standards, follow requirements of standard, except when more rigid requirements are specified or are required by applicable codes.

C. Follow reference standards by date of issue current on date of Contract Documents, except where specific edition date is required by code.

D. Where specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

E. Provisions within cited reference standards changing Owner, Architect, and Contractor duties and responsibilities from contractual requirements are void.

1.9 LABELING

A. Attach labels from agencies approved by authority having jurisdiction for products, assemblies, and systems required to be labeled by applicable code.

B. Label Information: Include approved agency identification on each label. Install products with labels visible. Include:

1. Manufacturer name.
2. Model number.
3. Serial number.
4. Performance characteristics.

1.10 TESTING AND INSPECTION SERVICES

A. Except where specified as Owner responsibility, employ and pay for specified services of an independent firm to perform testing and inspections.

1. Owner testing and inspecting agencies will be identified to Contractor.
2. Seismic testing will need to be performed by a special inspector. Contractor to coordinate inspection, but KCH will pay for said inspection directly.
3. TAB to be arranged and paid for by the contractor at substantial completion or other date agreed upon by all parties.
4. Perform services in accordance with requirements of governing authorities and with specified standards.
5. Copies of reports prepared by Owner testing and inspecting agencies will be sent to Contractor.
6. Reports will be submitted by the independent firm to the Prime Consultant, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents
7. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.

a. Notify WHFD and/or Project Manager and independent firm 24 hours prior to expected time for operations required services.
b. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.

B. Special Inspections:

1. Owner will employ Special Inspectors acceptable to Hawaii County to perform inspection on certain elements of the work as required by the Building Code and its Amendments. During the course of the Work under inspection, each Special Inspector will submit detailed reports relative to progress and conditions of the work including deviations from specified requirements and stipulating dates, times, and locations. Special inspector will submit a final report to the County, the Contractor and Prime Consultant. The Contractor shall cooperate fully with the Special Inspectors. The Contractor shall be responsible for scheduling of all inspections, including special inspections. The special inspector will send invoices directly to WHFD and/or Project Manager.

C. Include dates for agency testing and inspecting in Progress Schedule and provide minimum 10 days prior notice to agencies.

1. Provide access to the Work as requested by testing and inspecting agencies.
2. Provide samples of materials, design mixes, equipment, tools, storage for Samples, and assistance by incidental labor requested by agency.

D. Testing and employment of testing and inspecting agencies shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

E. Retest and reinspect defective work when required by Architect.

1. Failed Test Retest Cost: Contractor responsibility.

F. Limits on testing and inspecting agencies:

1. Agency does not have authority to release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency does not have authority to approve or accept any portion of Work.
3. Agency may not assume duties of Contractor.
4. Agency does not have authority to stop Work.

1.11 MANUFACTURER FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe and provide instructions when necessary for acceptable:

1. Installation conditions.
2. Workmanship quality.
3. Equipment startup.
4. Equipment test, adjust, and balance.

B. Submit qualifications of observer to Architect and WHFD and/or Project Manager 30 days, minimum, in advance of required observations.

1. Observer subject to approval of the Architect and the WHFD and/or Project Manager.

C. Report observations and site decisions or instructions that are supplemental or contrary to Contract Documents or manufacturers written instructions.

D. Submit written inspection reports per Section 013000.

1. Submit to Architect and WHFD and/or Project Manager within five (5) days of observation.

1.12 TEST REPORTS AND CERTIFICATIONS

A. When specified in individual Specification sections, require material or Product suppliers or manufacturers to provide test reports and manufacturer certifications.

B. Show that material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

C. Submittals may be recent or previous test results on material or Product, as acceptable to Architect.

D. Submit reports and certifications per Section 013300.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 4200 - REFERENCES

PART 1 GENERAL

1.1 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": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.

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.

1.2 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.

1.3 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.

This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. AABC - Associated Air Balance Council; www.aabc.com.
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
8. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
9. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
10. AF&PA - American Forest & Paper Association; www.afandpa.org.
11. AGA - American Gas Association; www.aga.org.
12. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
13. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
14. AI - Asphalt Institute; www.asphaltinstitute.org.
15. AIA - American Institute of Architects (The); www.aia.org.
16. AISC - American Institute of Steel Construction; www.aisc.org.
17. AISI - American Iron and Steel Institute; www.steel.org.
18. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
19. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
20. ANSI - American National Standards Institute; www.ansi.org.
21. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
22. APA - APA - The Engineered Wood Association; www.apawood.org.
23. APA - Architectural Precast Association; www.archprecast.org.
24. API - American Petroleum Institute; www.api.org.
25. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
26. ARI - American Refrigeration Institute; (See AHRI).
27. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
28. ASCE - American Society of Civil Engineers; www.asce.org.
29. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
30. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
31. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
32. ASSE - American Society of Safety Engineers (The); www.asse.org.
33. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
34. ASTM - ASTM International; (American Society for Testing and Materials International); www.astm.org.
35. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
36. AWEA - American Wind Energy Association; www.awea.org.
37. AWI - Architectural Woodwork Institute; www.awinet.org.
38. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
39. AWPA - American Wood Protection Association; (Formerly: American Wood-Preservers' Association); www.awpa.com.
40. AWS - American Welding Society; www.aws.org.
41. AWWA - American Water Works Association; www.awwa.org.
42. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
43. BIA - Brick Industry Association (The); www.gobrick.com.
44. BICSI - BICSI, Inc.; www.bicsi.org.

45. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.com.
46. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
47. BOCA - BOCA; (Building Officials and Code Administrators International Inc.); (See ICC).
48. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bwfbadminton.org.
49. CDA - Copper Development Association; www.copper.org.
50. CEA - Canadian Electricity Association; www.electricity.ca.
51. CEA - Consumer Electronics Association; www.ce.org.
52. CFFA - Chemical Fabrics & Film Association, Inc.; www.chemicalfabricsandfilm.com.
53. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
54. CGA - Compressed Gas Association; www.cganet.com.
55. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
56. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
57. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
58. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
59. CPA - Composite Panel Association; www.pbmdf.com.
60. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
61. CRRC - Cool Roof Rating Council; www.coolroofs.org.
62. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
63. CSA - Canadian Standards Association; www.csa.ca.
64. CSA - CSA International; (Formerly: IAS - International Approval Services); www.csa-international.org.
65. CSI - Construction Specifications Institute (The); www.csinet.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.cti.org.
68. CWC - Composite Wood Council; (See CPA).
69. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
70. DHI - Door and Hardware Institute; www.dhi.org.
71. ECA - Electronic Components Association; www.ec-central.org.
72. ECAMA - Electronic Components Assemblies & Materials Association; (See ECA).
73. EIA - Electronic Industries Alliance; (See TIA).
74. EIMA - EIFS Industry Members Association; www.eima.com.
75. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
76. ESD - ESD Association; (Electrostatic Discharge Association); www.esda.org.
77. ESTA - Entertainment Services and Technology Association; (See PLASA).
78. EVO - Efficiency Valuation Organization; www.evo-world.org.
79. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
80. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
81. FM Approvals - FM Approvals LLC; www.fmglobal.com.
82. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
83. FRSA - Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.; www.floridaroof.com.
84. FSA - Fluid Sealing Association; www.fluidsealing.com.
85. FSC - Forest Stewardship Council U.S.; www.fscus.org.
86. GA - Gypsum Association; www.gypsum.org.
87. GANA - Glass Association of North America; www.glasswebsite.com.
88. GS - Green Seal; www.greenseal.org.
89. HI - Hydraulic Institute; www.pumps.org.
90. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
91. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
92. HPVA - Hardwood Plywood & Veneer Association; www.hpva.org.
93. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.

94. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
95. IAS - International Approval Services; (See CSA).
96. ICBO - International Conference of Building Officials; (See ICC).
97. ICC - International Code Council; www.iccsafe.org.
98. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
99. ICPA - International Cast Polymer Alliance; www.icpa-hq.org.
100. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
101. IEC - International Electrotechnical Commission; www.iec.ch.
102. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
103. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
104. IESNA - Illuminating Engineering Society of North America; (See IES).
105. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
106. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
107. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.okstate.edu.
108. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
109. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
110. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
111. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
112. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
113. ISO - International Organization for Standardization; www.iso.org.
114. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
115. ITU - International Telecommunication Union; www.itu.int/home.
116. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
117. LMA - Laminating Materials Association; (See CPA).
118. LPI - Lightning Protection Institute; www.lightning.org.
119. MBMA - Metal Building Manufacturers Association; www.mbma.com.
120. MCA - Metal Construction Association; www.metalconstruction.org.
121. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
122. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
123. MHIA - Material Handling Industry of America; www.mhia.org.
124. MIA - Marble Institute of America; www.marble-institute.com.
125. MMPA - Moulding & Millwork Producers Association; (Formerly: Wood Moulding & Millwork Producers Association); www.wmmpa.com.
126. MPI - Master Painters Institute; www.paintinfo.com.
127. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
128. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
129. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
130. NADCA - National Air Duct Cleaners Association; www.nadca.com.
131. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
132. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
133. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
134. NCMA - National Concrete Masonry Association; www.ncma.org.
135. NEBB - National Environmental Balancing Bureau; www.nebb.org.
136. NECA - National Electrical Contractors Association; www.necanet.org.
137. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
138. NEMA - National Electrical Manufacturers Association; www.nema.org.
139. NETA - InterNational Electrical Testing Association; www.netaworld.org.
140. NFHS - National Federation of State High School Associations; www.nfhs.org.
141. NFPA - NFPA; (National Fire Protection Association); www.nfpa.org.

142. NFPA - NFPA International; (See NFPA).
143. NFRC - National Fenestration Rating Council; www.nfrc.org.
144. NHLA - National Hardwood Lumber Association; www.nhla.com.
145. NLGA - National Lumber Grades Authority; www.nlga.org.
146. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
147. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
148. NRCA - National Roofing Contractors Association; www.nrca.net.
149. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
150. NSF - NSF International; (National Sanitation Foundation International); www.nsf.org.
151. NSPE - National Society of Professional Engineers; www.nspe.org.
152. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
153. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
154. NWFA - National Wood Flooring Association; www.nwfa.org.
155. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
156. PDI - Plumbing & Drainage Institute; www.pdionline.org.
157. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
158. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
159. RFCI - Resilient Floor Covering Institute; www.rfci.com.
160. RIS - Redwood Inspection Service; www.redwoodinspection.com.
161. SAE - SAE International; (Society of Automotive Engineers); www.sae.org.
162. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
163. SDI - Steel Deck Institute; www.sdi.org.
164. SDI - Steel Door Institute; www.steeldoor.org.
165. SEFA - Scientific Equipment and Furniture Association; www.sefalabs.com.
166. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
167. SIA - Security Industry Association; www.siaonline.org.
168. SJI - Steel Joist Institute; www.steeljoist.org.
169. SMA - Screen Manufacturers Association; www.smainfo.org.
170. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
171. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
172. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
173. SPIB - Southern Pine Inspection Bureau; www.spib.org.
174. SPRI - Single Ply Roofing Industry; www.spri.org.
175. SRCC - Solar Rating and Certification Corporation; www.solar-rating.org.
176. SSINA - Specialty Steel Industry of North America; www.ssina.com.
177. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
178. STI - Steel Tank Institute; www.steeltank.com.
179. SWI - Steel Window Institute; www.steelwindows.com.
180. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
181. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
182. TCNA - Tile Council of North America, Inc.; (Formerly: Tile Council of America); www.tileusa.com.
183. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
184. TIA - Telecommunications Industry Association; (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
185. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
186. TMS - The Masonry Society; www.masonrysociety.org.
187. TPI - Truss Plate Institute; www.tpinst.org.
188. TPI - Turfgrass Producers International; www.turfgrasssod.org.
189. TRI - Tile Roofing Institute; www.tileroofing.org.
190. UBC - Uniform Building Code; (See ICC).

191. UL - Underwriters Laboratories Inc.; www.ul.com.
192. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
193. USAV - USA Volleyball; www.usavolleyball.org.
194. USGBC - U.S. Green Building Council; www.usgbc.org.
195. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
196. WASTEC - Waste Equipment Technology Association; www.wastec.org.
197. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
198. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
199. WDMA - Window & Door Manufacturers Association; www.wdma.com.
200. WI - Woodwork Institute; (Formerly: WIC - Woodwork Institute of California); www.wicnet.org.
201. WMMPA - Wood Moulding & Millwork Producers Association; (See MMPA).
202. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
203. WPA - Western Wood Products Association; www.wwpa.org.

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. This information is believed to be accurate as of the date of the Contract Documents.

1. IBC - International Building Code; www.codes.iccsafe.org.
2. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
3. ICC - International Code Council; www.iccsafe.org.
4. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

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. Information is subject to change and is up-to-date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; http://dodssp.daps.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; http://eetd.lbl.gov.
12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
13. SD - Department of State; www.state.gov.
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; www.trb.org.
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
17. USDJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
18. USP - U.S. Pharmacopeia; www.usp.org.
19. USPS - United States Postal Service; www.usps.com.

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. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.gpo.gov/fdsys.
2. DOD - Department of Defense; Military Specifications and Standards; Available from Department of Defense Single Stock Point; http://dodssp.daps.dla.mil.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from Department of Defense Single Stock Point; http://dodssp.daps.dla.mil.

    a. Available from Defense Standardization Program; www.dsp.dla.mil.
    b. Available from General Services Administration; www.gsa.gov.
    c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org/ccb.

6. MILSPEC - Military Specification and Standards; (See DOD).
7. USAB - United States Access Board; www.access-board.gov.
8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

E. State 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. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CBHF - State of California; Department of Consumer Affairs; Bureau of Electronic Appliance and Repair, Home Furnishings and Thermal Insulation; www.bearhfti.ca.gov.
2. CCR - California Code of Regulations; Office of Administrative Law; California Title 24 Energy Code; www.calregs.com.
3. CDHS - California Department of Health Services; (See CDPH).
4. CDPH - California Department of Public Health; Indoor Air Quality Program; www.cal-iaq.org.
5. CPUC - California Public Utilities Commission; www.cpuc.ca.gov.
6. SCAQMD - South Coast Air Quality Management District; www.aqmd.gov.
7. TFS - Texas Forest Service; Forest Resource Development and Sustainable Forestry; http://txforestservice.tamu.edu.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes.

1. General product requirements.
2. Product delivery.
3. Product storage and handling requirements.
4. Product selection.
5. Owner supplied products.
6. Equipment electrical characteristics and components.

1.2 DEFINITIONS

A. Products: Items purchased 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, except that products consisting of recycled- content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, 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. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design." 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 other named manufacturers.

D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Hospital.

E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Hospital.

1.3 GENERAL PRODUCT REQUIREMENTS

A. Supply products of new merchantable quality.

B. Supply products of each type from single manufacturer unless specified otherwise and regardless of how many subcontractors supply or install the product.

1. Where appearance attributes may vary between manufacturing lots, supply items from a single lot.

C. Supply products complete with accessories, trim, fasteners, and other items needed for installation for indicated use and appearance.

D. Examine products before installation. Do not install damaged products.

E. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.

F. Extra Materials:

1. Supply extra materials from same manufacturing lots as installed products.
2. Store extra materials in original packaging with intact labels. Mark packages with locations of installed products.
3. Store extra materials in building where directed by Owner.

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected.

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, the WHFD and/or Project Manager will determine which products shall be used.

1.5 PRODUCT DELIVERY

A. Transport and handle products per manufacturer instructions.

B. Deliver in original manufacturer packaging with intact labels and instructions.

C. Schedule delivery to minimize storage at Project site and to prevent overcrowding of construction spaces. Long term storage onsite is not permitted unless approved by WHFD and/or Project Manager.

D. Promptly inspect shipments to verify products follow requirements, quantities are correct, and products are undamaged.

1.6 PRODUCT STORAGE AND HANDLING

A. Store and protect products per manufacturer instructions.

B. Store products with seals and labels intact and legible.

C. Store products subject to water or temperature damage in weatherproof and climate controlled enclosures with environmental conditions within manufacturer recommendations.

D. 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.

E. Handle products to prevent soiling, disfigurement, or damage.

F. Exterior Storage:

1. Store products off ground, sloped for drainage, and protected from soiling and staining.
2. Cover products subject to moisture or UV deterioration and provide ventilation to allow condensation to dry.
3. Store loose granular materials on solid surfaces and prevent mixing with foreign matter.

G. Provide bonded offsite storage and protection when site storage or protection is not practical.

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

I. Storage: Provide a secure location and enclosure at Project site for temporary storage of materials and equipment. Coordinate location with WHFD and/or Project Manager. Long term storage onsite is not permitted unless approved by WHFD and/or Project Manager.

1.7 PRODUCT SELECTION

A. Products Specified by Reference Standards or by Descriptions Only: Any product meeting those standards or descriptions.

B. Products Specified by Naming Two or More Acceptable Products: Any named Product.

C. Products Specified by Naming One or More Manufacturers: Product of named manufacturer meeting specified requirements, no options or substitutions allowed unless specifically permitted.

D. Products Specified by Required Performance or Attributes Without Naming a Manufacturer or Product: Any product meeting specified requirements.

E. Basis of Design: Supply named product.

1. Where specification sections state that comparable or equivalent products may be submitted for consideration, provide Product Data documenting equivalency to named product and compliance with specified requirements.

F. Compatibility: Where more than one choice is available for Contractor selection of products, select products that are compatible with other products, including products previously selected or installed.

1. Total compatibility among Contractor options is not assured by limitations within Contract Documents, but must be provided by the Contractor.

G. Appearance Attributes: Unless specifically waived, request selection of colors, textures, patterns, or other appearance options from Architect for Products exposed to view in completed Work.

1.8 MANUFACTURER WARRANTIES

A. Write warranties for Owner benefit.

B. Warranty Period: See individual Specification sections.

C. Warranty Effective Date: Date of Substantial Completion or date of Product acceptance when after Substantial Completion.

D. 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.

E. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
3. Refer to Divisions 02 and higher Sections for specific content requirements and particular requirements for submitting special warranties.

F. Submittal Time: Comply with requirements in Section 017000 - Execution and Closeout Requirements.

1.9 OWNER-SUPPLIED, CONTRACTOR-INSTALLED PRODUCTS

A. Owner Responsibilities:

1. Provide Product Data, Shop Drawings, Samples, and other submittals to Contractor.
2. Provide copies of manufacturer installation instructions, SDS and other safety information.
3. Arrange and pay for delivery to site.
4. Notify Contractor of scheduled delivery dates.
5. Inspect delivered products jointly with Contractor.
6. Submit claims for transportation damage, and replace damaged, defective, and missing items.
7. Arrange for manufacturer warranties, inspections, and services.

B. Contractor Responsibilities:

1. Designate scheduled delivery dates for Owner supplied products in construction progress schedule.
2. Review Owner provided submittals for compatibility, installation, and use requirements. Notify Architect and Owner of issues that relate to coordination or scheduling.
3. Receive, unload, handle, and store delivered products.

a. Products Received at Project Site: Inspect jointly with Owner for completeness and damage.
b. Products Received at Contractor Warehouse: Inspect for completeness and damage. Submit report of missing or damaged Products to Owner within two days of receipt. Transport Products to Project site and unload for installation.

4. Protect Owner supplied products against loss and damage after receipt.
5. Repair or replace items damaged after delivery.
6. Install and otherwise incorporate Owner supplied products into the Work.

C. Products supplied by Owner for installation by Contractor:

1. Items noted as OSCI or OFCI.

PART 2 PRODUCTS

2.1 PRODUCT OPTIONS

A. General Product Requirements: Provide products that comply with the Contract Documents that are undamaged, and unless otherwise indicated, that 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. Hospital 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 “match sample,” sample to be matched is Prime Consultant’s.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics” of products.
6. Or Equal: Where products are specified by name and accompanied by the term “or equal” or “or approved equal” or “or approved,” comply with provisions in “Comparable Products” Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures: Procedures for product selection include the following:

1. Product: Where Specification paragraphs or subparagraphs titled “Product” name a single product and manufacturer, provide the product named.
2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled “Manufacturer” or “Source” name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
3. Products: Where Specification paragraphs or subparagraphs titled “Products” introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
4. Manufacturers: Where Specification paragraphs or subparagraphs titled “Manufacturers” introduce a list of manufacturers’ names, provide a product by one of the manufacturers listed that complies with requirements.
5. Available Products: Where Specification paragraphs or subparagraphs titled “Available Products” introduce a list of names of both products and manufacturers, provide one of

the products listed or another product that complies with requirements. Comply with provisions in “Comparable Products” Article to obtain approval for use of an unnamed product.

6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled “Available Manufacturers” introduce a list of manufacturer names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in “Comparable Products” Article to obtain approval for use of an unnamed product.
7. Product Options: Where Specification paragraphs titled “Product Options” indicate that size, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer. Comply with provisions in “Product Substitutions” Article.
8. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled “Basis-of-Design Product[s] are included and also introduce or refer to a list of manufacturers’ names, provide either the specified 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 provisions in “Comparable Products” Article to obtain approval for use of an unnamed product.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Prime Consultant’s sample. WHFD and/or Project Manager’s or Contract Manager’s decision will be final on whether a proposed product matches satisfactorily.

    a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on “substitutions” for selection of a matching product.

10. Visual Selection Specification: Where Specifications include the phrase “as selected from manufacturer’s colors, patterns, textures” or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.

    a. Standard Range: Where Specifications include the phrase “standard range of colors, patterns, textures” or similar phrase, WHFD and/or Project Manager and Contracts Manager will select color, pattern, or texture from manufacturer’s product line that does not include premium items.
    b. Full Range: Where Specifications include the phrase “full range of colors, patterns, textures or similar phrase. WHFD and/or Project Manager and Contracts Manager will select color, pattern, or texture from manufacturer’s product line that includes both standard and premium items.

11. Allowances: Refer to individual Specification Sections and “Allowance” provisions in Division I for allowances that control product selection and for procedures required for processing such selections.

2.2 PRODUCT SUBSTITUTIONS

A. Related Requirements: Section 012500 - Substitution Procedures.

B. Follow the procedures as described in Hawaii Health Systems Corporation General Conditions for Construction.

2.3 COMPARABLE PRODUCTS

A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:

1. Provide evidence that the proposed product does not require extensive revisions to the Contract Documents.
2. Provide evidence that the proposed product is consistent with the intent of the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
3. 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.
4. Provide evidence that proposed product provides specified warranty.
5. List of similar installations for completed projects with project names and addresses and names and addresses of Prime Consultants and owners, if requested.
6. Samples, if requested.

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Execution Requirements.
2. Cutting and Patching.
3. Progress cleaning.
4. Closeout procedures.
5. Systems Startup.
6. Demonstration and instruction.
7. Testing, adjusting, and balancing.
8. Protecting installed construction.
9. Project record documents.
10. Operation and maintenance data.
11. Manual for materials and finishes.
12. Manual for equipment and systems.
13. Spare parts and maintenance products.
14. Product warranties and product bonds.
15. Maintenance service.
16. Final cleaning.

1.2 EXECUTION REQUIREMENTS

A. Examination:

1. Acceptance of Conditions: Examine substrates, areas, and conditions, with General Contractor and Subcontractor present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

a. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

1) Description of the Work.
2) List of detrimental conditions, including substrates.
3) List of unacceptable installation tolerances.
4) Recommended corrections.

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

2. Field verify existing conditions prior to commencement of work and immediately notify the Architect of any discrepancies or conditions that would prevent execution of the work as shown.
3. Verify existing conditions are acceptable before starting subsequent Work.
4. Verify existing substrates can receive and support subsequent Work.
5. Examine and verify specific conditions described in individual specification sections.
6. Where possible, take field measurements before confirming product orders and beginning fabrication.
7. Verify utility services are available, correctly located, and correct characteristics.

B. Preparation, General:

1. Existing Utility Information: Furnish information to local utility 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.
2. 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.
3. Space Requirements: Verify space requirements and dimensions of Items shown diagrammatically on Drawings.
4. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Prime Consultant. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

C. Preparation:

1. Clean substrate surfaces before applying next material or substance.
2. Seal substrate cracks and openings before applying next material or substance.
3. Apply manufacturer required or recommended substrate primer, sealer, or conditioner before applying next material or substance.

D. General Installation Requirements:

1. Follow manufacturer instructions and recommendations, applicable reference standards, and other requirements in individual specification sections.
2. When manufacturer instructions conflict with Contract Documents, request clarification from Architect before proceeding.
3. Make vertical elements plumb and horizontal elements level.
4. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines.
5. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or damage.
6. Make consistent textures on surfaces, with seamless transitions.
7. Make neat transitions between different surfaces, maintaining textures and appearances.

1.3 CUTTING AND PATCHING

A. Whenever possible, execute the Work by methods that avoid cutting or patching.

B. Perform whatever cutting and patching is necessary to:

1. Complete the Work.
2. Fit products together to integrate with other elements.
3. Match Work that has been cut to adjacent Work.
4. Repair areas adjacent to cuts to required condition.
5. Repair new Work damaged by subsequent Work.
6. Remove and replace defective and nonconforming Work.

C. Before cutting, examine existing conditions, including elements subject to damage or movement during cutting and patching.

D. Execute Work by methods that avoid damage to other Work and that will provide appropriate surfaces to receive patching and finishing. In existing Work, minimize damage and restore to original condition.

E. Employ experienced installers to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

F. Cut rigid materials using masonry saw or core drill. Obtain Architect approval for pneumatic tools use.

G. Restore Work with new products in accordance with requirements of Contract Documents.

H. Do not penetrate walls or roof with cutting and patching.

I. Patching:

1. Finish patched surfaces to match finish color, texture, and appearance that existed before patching.

   a. Continuous Surfaces: Refinish to nearest intersection or natural break.
   b. Assemblies: Refinish entire unit.

2. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching Work. If defects are due to substrate condition substrate, repair substrate before repairing finish.

1.4 PROGRESS CLEANING

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

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Remove liquid spills promptly.

B. Remove debris and rubbish from pipe chases, plenums, and other closed or remote spaces before enclosing spaces.

C. 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.

D. Broom and vacuum clean interior areas before starting surface finishing, and continue cleaning to eliminate dust.

E. Collect and remove waste materials, debris, trash, and rubbish from site periodically and dispose offsite; dispose of materials lawfully; do not burn or bury.

1. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.

1.5 CLOSEOUT PROCEDURES

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in 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 Hospital Risk Manager of pendinginsurance changeover requirements, if necessary.
3. Obtain and submit releases permitting Hospital unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
4. Prepare and submit Project Record Documents, marked-up hardcopy of the Record Drawings, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
5. Complete startup testing of systems.
6. Submit test/adjust/balance, including TAB, records.
7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
8. Advise WHFD and/or Project Manager of changeover in heat and other utilities.
9. Submit changeover information related to Hospital's occupancy, use, operation, and maintenance.
10. Complete final cleaning requirements, including touchup painting.
11. 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, the WHFD and/or Project Manager will either advise the Prime Consultant to proceed with inspection or notify Contractor of unfulfilled requirements. Upon request from the WHFD and/or Project Manager , the Prime Consultant 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 the WHFD and/or Project Manager that must be completed or corrected before the certificate will be issued.

1. Re-inspection: Request re-inspection 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.

C. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect review.

1. If Architect performs reinspections due to failure of Work to comply with claims of status of completion made by Contractor, Owner will compensate Architect for such additional services and will deduct the amount of such compensation from final payment to Contractor.
2. Submit copy of WHFD and/or Project Manager's Substantial Completion inspection list of items to be completed or corrected. The copy of the list shall state that each item has been completed or otherwise resolved for acceptance.

D. Provide submittals to Architect and Owner required by authorities having jurisdiction.

E. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

F. Closeout Submittals:

1. Evidence of compliance with requirements of governing authorities.
2. Certificate of Occupancy.
3. Project Record Documents.
4. Operation and Maintenance Data.
5. Warranties.
6. Keys and keying schedule.
7. Spare parts and maintenance products.
8. Evidence of payment to Subcontractors and suppliers.
9. Final lien waiver.
10. Certificates of insurance for products and completed operations.
11. Consent of Surety to final payment.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit electronic copy of punch 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 Contractor's form, if acceptable to Architect and Owner.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:

a. Project name.
b. Date.
c. Name of Contractor.
d. Page number.

1.7 SYSTEMS STARTUP

A. Coordinate schedule for startup of various equipment and systems.

1. Minimize shut down time of systems that are temporarily shut down to facilitate work. Restart in accordance with system manufacturer's or authorized service personnel's recommendations.

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

C. Execute startup under supervision of applicable manufacturer representative and Contractors personnel per manufacturer instructions.

1.8 PROTECTING INSTALLED CONSTRUCTION

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activities in immediate work areas to prevent damage.

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

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

1.9 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents for recording revisions to the Work and locations of concealed work:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other Contract Modifications.
5. Reviewed Product Data, Shop Drawings, and Samples.
6. Manufacturer instructions for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

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

D. Record information concurrent with construction progress, but not less than weekly.

E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following data:

1. Manufacturer names and models and numbers for installed products.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and Modifications.

F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including following data.

1. Measured depths of foundations in relation to finish ground floor datum.
2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
4. Field changes of dimension and detail.
5. Details not on original Contract Drawings.

G. Electronic Project Website Files: Submit archive of electronic files from project website to Architect and Owner in digital format acceptable to Owner.

H. Submit documents to Architect with final application for payment.

1.10 OPERATION AND MAINTENANCE DATA

A. Electronic File Manuals: Submit manuals as composite electronic PDF file for each manual type.

1. Arrange files by system and subsystem with bookmarks and bookmarks for individual document files.
2. Include drawing files appropriate to content.

B. Table of Contents:

1. Part 1: Directory listing names, addresses, and telephone numbers of Architect and its consultants, Owner consultants, Contractor, subcontractors, and major equipment suppliers.
2. Part 2: Operation and maintenance instructions arranged by system and subdivided by Specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Include the following information:

    a. Significant design criteria.
    b. List of equipment.
    c. Parts list for each component.
    d. Operating instructions.
    e. Maintenance instructions for equipment and systems.
    f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.

3. Part 3: Project documents and certificates, including the following:

    a. Record Shop Drawings and Product Data.
    b. Test and balance reports.
    c. Certificates.
    d. Warranty copy.
    e. Bond copy.

1.11 MANUAL FOR MATERIALS AND FINISHES

A. Submit electronic PDF files of proposed format and outline of contents before start of Work. Architect will review draft and return annotated PDF file with comments.

1. Include listing in Table of Contents for design data with space for insertion of data.

B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.

C. Submit electronic PDF files of completed manuals 15 days before final inspection. Draft copy will be reviewed and returned with Architect comments after final inspection. Revise content of document sets as required by review comments before final submission.

D. Submit electronic PDF files in final form within 10 days after final inspection.

E. Building Products, Applied Materials, and Finishes: Include record Product Data, with catalog number, size, composition, and color and texture designations.

1. Include information for reordering custom manufactured products.

F. Instructions for Care and Maintenance: Include manufacturer recommendations for cleaning products and methods, precautions against detrimental cleaning products and methods, and recommended schedule for cleaning and maintenance.

G. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.

H. Additional Requirements: Specified in individual specification sections.

1.12 SPARE PARTS AND MAINTENANCE PRODUCTS

A. Supply spare parts, maintenance, and extra products in quantities specified in individual specification sections.

B. Deliver to Project site and place in location as directed by Owner; obtain receipt before final payment.

1.13 PRODUCT WARRANTIES

A. Obtain warranties from responsible subcontractors, suppliers, and manufacturers within 10 days after completion of applicable item of Work.

B. Include copies of standard manufacturer warranties that do not require execution.

C. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers.

D. Verify documents are in proper form, contain full information, and, where signed, are notarized.

E. Assemble product warranties in loose leaf notebook with table of contents.

1. Scan warranties and submit as composite PDF file with table of contents and bookmarks for Specification sections.
2. Arrange warranties by Specification section.

F. Submit warranties before final Application for Payment.

G. Time of Submittals:

1. For equipment or component parts of equipment put into service during construction with Owner permission, submit documents within 10 days after acceptance.
2. Make other submittals within 10 days after Date of Substantial Completion and before final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing date of acceptance as beginning of warranty period.

1.14 FINAL CLEANING

A. Perform final cleaning before inspection for Substantial Completion.

1. Comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Cleaning agents must be approved WHFD and/or Project Manager. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.

D. Clean site; sweep paved areas, rake clean landscaped surfaces.

E. Remove waste and surplus materials, rubbish, and construction facilities from site.

PART 2 PRODUCTS

2.1 PATCHING MATERIALS

A. New Materials: Specified in product sections; match existing products and Work for patching and extending Work.

B. Existing Products: Determine type and quality by inspection and testing. Refer to existing as work results standard.

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 05 7000 - DECORATIVE METAL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Custom decorative metal panels.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate work results of this Section with other work.
2. Coordinate installation of anchorages for decorative metal panels.

1.3 ACTION SUBMITTALS

A. Product Data: For each exposed product, finish, and accessory.

B. Shop Drawings: Show dimensions, fabrication, and installation details.

1. Include plans, elevations, components, and attachments.
2. Include details, materials and profiles of decorative metal elements. Show component, fittings, joinery, anchorages and accessories.
3. Custom Patterns: Detail components.

C. Samples:

1. Decorative Metals: Full sized Samples of each fabricated component. Approved Samples may be incorporated into Work.
2. Welded Joints: Demonstrate workmanship, and finishes.
3. Finish Samples: Each custom finish.

1.4 INFORMATIONAL SUBMITTALS

A. Delegated Design Submittals:

1. Provide delegated design documentation.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Fabricators: Five years minimum experience fabricating products of similar scope and complexity.
2. Installers: Product fabricators or installers with three years minimum experience and approved by fabricator.
3. Welding Qualifications:

a. Aluminum: AWS D1.2/D1.2M.

4. Licensed Professionals: Engineer specializing in design of similar Work, licensed in jurisdiction.

B. Mockups: Construct 100 sq. ft. minimum size. Demonstrate product interfaces, intersections, and terminations.

1. Mockups Location: Field.
2. Approved mockups establish products and work results standard.
3. Approved mockups may remain as a part of the Work.

C. Source Limitations: Obtain each type of materials through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store decorative metal away from concrete and masonry.

B. Store materials in a dry, well ventilated space, above ground.

1.7 FIELD CONDITIONS

A. Existing Conditions: Verify field measurements before fabrication. Show field measurements on Shop Drawings.

PART 2 PRODUCTS

2.1 DECORATIVE METAL FABRICATORS

A. Fabricators: .

1. Basis of Design: Jayco.Hawaii, Inc.

B. Fabrications:

1. Perforated metal, designs as indicated on Drawings.

a. Perforations: Custom patterns as indicated on Drawings.
b. Pattern Cuts: Water jet cut.

2. Metal: Aluminum.
3. Metal Sheet and Plate Thickness: 0.125 inch thick, minimum.
4. Border: solid 1 inch at each panel.

    a. Concealed Frame: 1 x 1 inch aluminum tube frame, welded, with mitered corners.

5. Panel Sizes: As indicated on Drawings.

2.2 PERFORMANCE

A. Delegated Design:

1. Delegate panel design to fabricator licensed Professional Engineer.
2. Structural Design Requirements: Assemblies capable of withstanding design wind loads indicated under in-service conditions with deflection no greater than L/120 of the span, based on testing manufacturer's standard units in accordance with ASTM E330 by qualified independent testing and inspecting agency.

B. Environmental Performance:

1. Expansion and Contraction: Withstand 120 degree F ambient and 180 degree F surface thermal cycling without failure.

2.3 METALS, GENERAL

A. Metal Surfaces: Provide flat materials with specified surface texture, without production marks, blemishes, or discolorations.

2.4 ALUMINUM

A. Fabricate products using minimum alloy and temper as follows.

1. Bars and Shapes: ASTM B221, Alloy 6063-T5/T52.
2. Plate and Sheet: ASTM B209 Alloy 6061-T6.
3. Forgings: ASTM B247.
4. Extruded Structural Shapes: ASTM B308, 6061-T6.

2.5 FASTENERS

A. Provide fasteners for decorative metal materials as required.

1. Aluminum: Type 316 stainless steel fasteners.
2. Dissimilar Metals: Type 316 stainless steel.

B. Provide concealed fasteners for interconnections and mounting decorative metal unless exposed fasteners are part of the design.

1. Provide exposed fasteners with tamper resistant machine screws.

C. Post-Installed Anchors:

1. Adhesive Type: ICC ES AC308.
2. Mechanical Type: ICC ES AC193.
3. Materials:

a. Exterior Locations: Stainless steel of Alloy Group 2, ASTM F593 bolts and ASTM F594 nuts.

2.6 WELDING/BRAZING

A. Welding Rods and Electrodes: AWS recommended type for each metal and alloy.

1. Aluminum: Provide rods and electrodes recommended by aluminum producer.

2.7 ACCESSORY MATERIALS

A. Bituminous Paint: ASTM D1187, cold-applied asphalt emulsion.

2.8 FABRICATION - GENERAL

A. Fit and shop assemble items in largest practical sections, for delivery to site.

B. Fabricate items to required shapes with joints tightly fitted and secured, to true lines, curves and angles.

C. Smooth edges, holes, and punches.

D. Seal joined members by continuous welds.

E. Grind exposed joints flush and smooth with adjacent finish surfaces. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to uniform small radius.

F. Exposed Welded Joints: NOMMA Guideline 1 Joint Finish 1.

G. Exposed Mechanical Fastenings: Flush countersink screws or bolts; unobtrusively located; consistent with design of component.

H. Tolerances:

1. Squareness: 1/8 inch maximum deviation in diagonal measurements.
2. Face Offset: 1/32 inch, maximum.
3. Misalignment of Adjacent Members: 1/16 inch, maximum.
4. Bow: 1/8 inch in 48 inches, maximum.
5. Plane: 1/8 inch deviation in 48 inches, maximum.

2.9 FABRICATION - FORMED SHEET METAL

A. Metal Base: Dimensions and profile shown on Drawings.

1. Aluminum Sheet: 0.125 inch thick, minimum.

a. Finish: Color coating.
b. Color: Architect Selected.

B. Trim, Closures, and Panels: Form trim closures and panels to fit tight to adjacent construction.

1. Stand Offs and Extrusions:

a. Solid aluminum rods and extrusions, sizes as detailed or indicated in approved submittals.

1) Finish: Color coating.

2.10 FINISHES

A. Finish Standard: NAAMM/NOMMA AMP 500.

B. Provide protective strippable covering for mechanical finishes.

C. Appearance of Finished Work:

1. Variations in Adjacent Pieces: 1/2 the variation range of approved Samples, maximum.
2. Variation of Remote Pieces: Acceptable if within approved sample range. Install to minimize appearance variation.
3. Variations Within a Single Piece: Not acceptable.

D. Aluminum Finishing:

1. Color Coating: Superior-Performance two-coat fluoropolymer finish with minimum 70 percent PVDF or FEVE resin by weight in color; AAMA 2605. Kynar, Basis of Design.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify concealed blocking or backing plates are installed and correctly located for decorative metal component mounting.

3.2 PREPARATION

A. Apply protective coating to metals in contact with cementitious materials or dissimilar metals.

B. Provide temporary support for decorative metal components until installation is complete.

C. Coordinate and Furnish: Anchorages, setting drawings, diagrams, templates, instructions, and directions for installation of items having integral anchors embedded in concrete or masonry construction.

3.3 INSTALLATION

A. Install components secure, plumb, and level.

B. Fasten Work rigidly and securely to supports.

C. Prevent contact of dissimilar metals by use of zinc rich paint, bituminous coating, or non-absorptive gaskets.

D. Field weld components shown on Drawings or shown on Shop Drawings. Limit field welding to joints or components that cannot be shop welded because of shipping size limitations.

1. Aluminum: AWS D1.2.

E. Protect finishes of decorative metal components during installation.

3.4 CLEANING

A. Cleaning: Clean and remove any marks or deposits from installation.

B. Clean up and repair finishes at locations of field welds.

3.5 PROTECTION

A. Protection: Protect decorative metal components from damage until Substantial Completion.

END OF SECTION

SECTION 07 0130 - MAINTENANCE OF STEEP SLOPE ROOFING

PART 1 GENERAL

1.1 SUMMARY

A. Work Results:

1. Cleaning existing metal roofing and roof edge drainage system.
2. Evaluation of existing metal roofing and finish.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate work results of this Section with other work.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Cleaning and preparation products.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer instructions.

PART 2 PRODUCTS

2.1 CLEANING PRODUCTS

A. Cleaning Products: Non-flammable, VOC compliant, phosphate-free, biodegradable cleaner.

1. Manufacturers and Products, Basis of Design:

a. Watts Removal Products, Crossover Wash.
b. Or approved equal, subject to Project requirements.

2. Product Requirements: Manufacturer recommended for cleaning metal roofing.
3. Designed to remove all types of surface contaminates, including but not limited to:

a. Staining from algae.
b. Mold and mildew.
c. Oxidation.
d. Dirt, dust and sludge.

e. Environmental staining.
f. Organic staining.
g. Tiger striping.
h. Inanimate organic particulates.
i. Inanimate scum.

4. Materials and Products that are not acceptable include but are not limited to:

a. Stiff bristled brushes that will scratch metal.
b. Harsh chemicals, acids, bleach, ammonia.

2.2 TOOLS

A. Soft-bristled brushes.

B. Gentle washcloths.

C. Pressure washer.

D. Hose and nozzle.

PART 3 EXECUTION

3.1 EXAMINATION

A. Preinstallation Testing.

1. Test cleaning solution and cleaning tools in unobtrusive location to confirm cleaning methods and materials without scratching or damaging existing metal and finish.
2. Provide results and photos to Architect and confirm acceptance prior to further work.
3. Test and confirm that existing roof edge drainage system is properly functioning.

a. Report blockages if below grade to Architect. Request direction.
b. Remove and repair blockages if above grade.

B. Evaluation and Assessment: Conditions observed during Bidding will be maintained by Owner until Work commences; no changes anticipated.

1. Review and reconfirm that roofing is securely mounted to deck, and visually observe exposed fasteners, if applicable, for degradation. Report issues to Architect. Request direction.
2. Review and reconfirm that roof edge drainage system is securely mounted to deck and/or wall and visually observe exposed fasteners, if applicable, for degradation. Report issues to Architect. Request direction.

3.2 PREPARATION

A. Protection of In-Place Conditions:

1. Protect adjacent finishes from damage and chemicals.

2. Protect finishes and landscaping below from damage and chemicals.
3. Coordinate scheduling of cleaning operations with repairs and finishes of adjoining work. Do not damage new repairs and finishes.

3.3 CLEANING APPLICATION - GENERAL

A. Follow manufacturer's written recommendations for cleaning.

B. Initial Rinse: Rinse with water to remove or loosen existing debris and staining. Remove debris from roof edge drainage system as required.

C. Apply cleaning solution as recommended by manufacturer.

1. Supplement cleaning solution by use of gentle brush as recommended by cleaning solution manufacturer.
2. Thoroughly rinse and remove cleaning solution.
3. Repeat process until roof is clean.
4. Inspect roof for damage and deterioration. Provide report with photos to Architect.

a. Damages Due to Cleaning: Request direction for repair methods and requirements from Architect. Repair as directed at no additional cost to Owner.
b. Deterioration Concealed Prior to Cleaning: Request direction from Architect.

D. Upon completion of roof cleaning, clean and remove protection from adjacent surfaces and grade. Repair damages as required.

E. Ensure roof edge drainage system is functioning properly at completion of work.

END OF SECTION

SECTION 07 9200 - JOINT SEALANTS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes.

1. Exterior exposed nontraffic sealants.
2. Exterior concealed sealants.
3. Installation Accessories.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate work results of this Section with other work.

1.3 ACTION SUBMITTALS

A. Submittal Procedures:

1. Provide submittals for all sealants in a single group, regardless of how many subcontractors will install sealants. Multiple submittals for sealants are not acceptable.

B. Product Data:

1. Each sealant type.

C. Joint Sealant Schedule:

1. Joint types.
2. Joint locations.
3. Sealant types and proprietary products.
4. Joint sealant colors.

D. Samples:

1. Cured sealant custom color ribbons; 12 inches minimum length.

1.4 INFORMATIONAL SUBMITTALS

A. Certificates:

1. From manufacturers of joint sealants attesting that their products comply with specification requirements, are recommended, and suitable for the use indicated.

B. Test and Evaluation Reports: Independent testing agency testing results.

1. Compatibility and adhesion test reports.
2. Staining potential test reports.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data.

B. Warranty Documentation: Sealants.

1.6 QUALITY ASSURANCE

A. Qualifications:

1. Installers:

a. Three years experience, minimum.
b. Has completed joint sealant applications similar in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.
c. Trained and acceptable to manufacturer.

2. Testing Agencies:

a. Qualified in accordance with ASTM C1021 to conduct the testing indicated.

B. Mockups: Install sealants in exterior wall mockups. Demonstrate product interfaces, intersections, and terminations.

1. Adhesion: Test sealant joints in mockup per ASTM C1193, Method A in Appendix X1.1 or ASTM C1521, Method A. At joints between different materials, test each joint surface separately.
2. Approved mockups establish work results standard.

1.7 FIELD CONDITIONS

A. Ambient Conditions: Perform work within following limitations.

1. Temperature: Perform work within sealant manufacturer published temperature limits.
2. Precipitation: None occurring and none predicted within manufacturer's recommended number of hours.

1.8 WARRANTY

A. Manufacturer Warranty:

1. Exterior Sealants: Warrant joint sealants will provide a watertight weather seal for the Warranty duration.

a. Failure includes loss of elastomeric properties and required performance attributes.
b. For porous substrates, failure also includes discoloration of substrates.
c. Warranty Period, Urethanes: Five years.
d. Warranty Period, Silicones: 20 years.

PART 2 PRODUCTS

2.1 SEALANTS - GENERAL

A. Source Control: Provide one proprietary product for each type of sealant required, regardless of what Subcontractor installs the sealant.

B. Select proprietary sealants for compatibility with other construction products that the sealants will contact.

C. Multiple colors may be required for exposed sealants to coordinate with substrate colors.

2.2 EXTERIOR EXPOSED NONTRAFFIC SEALANTS

A. Class 50 Silicone Sealant: Single component, nonsag, neutral curing; ASTM C920, Type S, Grade NS, Class 50, Use NT.

1. Manufacturers and Products:

a. Dow DOWSIL 795.
b. GE Construction Sealants SCS2000 SilPruf.
c. Pecora Corporation PCS.
d. Sika Sikasil WS-295.
e. Tremco Spectrem 2.

2. Colors: Architect selected.
3. Applications:

a. Perimeter weathersealing of doors and windows.

B. Class 100/50 Silicone Nonstaining Sealant: Single component, nonsag, neutral curing; ASTM C920, Type S, Grade NS, Class 100/50, Use NT; classed as nonstaining when tested per ASTM C1248.

1. Manufacturers and Products:

a. Dow DOWSIL 790.
b. GE Construction Sealants s SCS2700 SilPruf. LM.
c. Pecora Corporation 890FTS.
d. Sika Sikasil WS-290.
e. Tremco Spectrem 1.

2. Colors: Architect selected.
3. Applications:

a. Perimeter weathersealing of doors and windows.

C. One-Part Class 25 Urethane Sealant: ASTM C920, Type S, Grade NS, Class 25, Use NT.

1. Manufacturers and Products:

a. Tremco Vulkem 116.
b. Sika SikaflexNP-1.

2. Colors: Architect selected.
3. Applications:

a. General Use: Masonry, precast concrete, poured concrete, window and door perimeters.
b. Construction joints.

2.3 EXTERIOR CONCEALED SEALANTS

A. Butyl Sealant: ASTM C1311.

1. Manufacturers and Products:

a. Pecora Corporation BC-158.
b. Tremco Butyl Sealant.
c. C.R. Laurence 888.

2. Applications:

a. Buttering or bedding of non-porous components that are squeezed or compressed together by fastening.
b. Separation of dissimilar materials.
c. Insertion into pre-drilled fastener holes.

2.4 INSTALLATION ACCESSORIES

A. Primer: As required by sealant manufacturer.

B. Backer Rod: ASTM C1330, Type C, closed-cell or Type O, open-cell, manufacturer recommended types, and where identified in approved submittals.

C. Bond Breaker Tape: Self-adhesive plastic tape to prevent sealant from adhering to back of joint.

D. Cleaners: Manufacturer recommended types.

E. Masking: Non-staining, self-adhesive.

PART 3 EXECUTION

3.1 PREPARATION

A. Clean joint surfaces for optimum adhesion. Remove dirt, moisture, and incompatible substances.

B. Roughen vitreous and glazed joint surfaces as recommended by sealant manufacturer.

C. Remove laitance and form release agents from concrete.

D. Existing Joints: Cut out and remove existing joint sealants down to original substrate. Small amounts of elastomeric sealants left in surface irregularities of concrete and masonry may be left in place subject to Architect approval, provided that they are securely bonded to surface, are compatible with new sealant, and are tested to demonstrate that suitable adhesion with new sealant can be achieved. Where these conditions cannot be met, remove existing sealants completely.

E. Prime joint surfaces where recommended by sealant manufacturer. Protect adjacent surfaces from misapplication or spillage of primer.

F. Mask surfaces adjacent to joints to receive elastomeric sealants. Remove masking after tooling.

3.2 INSTALLATION

A. Installation Reference Standard: Follow ASTM C1193.

B. General Installation Requirements:

1. Exterior Joint Sealants: Provide continuous, weatherproof seals to prevent infiltration of air and water through the joints.
2. Appearance: Apply sealants with smooth surfaces free of gaps, voids, bubbles, lumps, crevices, runs, drips, striations, and other irregularities.

C. Set joint filler units at uniform depths in joints to support sealants and maintain proper sealant cross section shape and depth recommended by manufacturer for each application.

D. Set joint filler for sealant neck dimension 1/3 of joint width, maximum, or as recommended by manufacturer for application.

E. Install joint fillers under compression and friction fit. Do not install filler units that have absorbed water.

1. Do not leave voids or gaps between ends of joint filler units.
2. Do not stretch, twist, puncture, or tear joint fillers.
3. Remove joint fillers that have absorbed moisture or which have ruptured gas cells and install suitable new fillers before sealant application.

F. Install bond breaker tape where shown on Drawings or where joint filler is not used to prevent adhesion to back of joint.

G. Deposit sealants in uniform, continuous ribbons without gaps or air pockets.

H. Tool sealants to ensure full adhesion. Form smooth, slightly concave surface.

I. Cure joint sealants.

3.3 FIELD QUALITY CONTROL

A. Adhesion Testing: ASTM C1521, Method A.

1. Perform two tests per type of sealant.
2. Report Content:

    a. Presence of voids and discontinuities.
    b. Sealant dimensions and seal shape.
    c. Failures in adhesion and cohesion.

B. Non Conforming Work: Remove sealants that do not pass tests, reapply sealant, and retest.

3.4 CLEANING

A. Clean spills, misapplications, and material migrations immediately as they occur.

B. Clean marred surfaces by whatever means are necessary to eliminate evidence of spillage.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of Substantial Completion.

B. Cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

END OF SECTION

SECTION 09 0170 - MAINTENANCE OF WALL FINISHES

PART 1 GENERAL

1.1 SUMMARY

A. Work Results:

1. Evaluation and repair of existing wall finishes, including but not limited to stucco, parge coats, and EIFS finishes.
2. Preparation for new finish coatings.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate work results of this Section with other work.

B. Preinstallation Meeting Attendees and Procedures:

1. Conduct meeting one week, minimum, before starting Work of this Section.
2. Additional Attendees:

a. Architect.
b. Installers of repair materials and finishes.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Cleaning and preparation products.
2. Repair materials product data.

B. Shop Drawings:

1. proposed details for repairs.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Reports: Field inspection reports.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Installers: Minimum three years documented experience in repairs and preparations as required in this Section, and acceptable to manufacturers of repair products.

1.6 FIELD CONDITIONS

A. Existing Conditions: Verify field measurements before fabrication. Show field measurements on Shop Drawings.

PART 2 PRODUCTS

2.1 PERFORMANCE

A. Fire Resistance:

1. ASTM E119.
2. NFPA 285.

B. Surface Burning: ASTM E84 Class Match existing assembly.

C. Environmental Performance:

1. Expansion and Contraction: Withstand 120 degrees F ambient and 180 degrees F surface thermal cycling without failure.

2.2 MATERIALS

A. Stucco:

1. Mix or components as required to patch or replace existing that is cracked and/or delaminated from substrate.

B. Exterior Insulation and Finish System (EIFS):

1. Components and products, or system, as required to patch or replace existing that is cracked, damaged, shows signs of water intrusion, or compromised.

C. Joint Sealants: Refer to Section 079200.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

1. Examine existing surfaces and finishes and Construction Documents.
2. Report observations that differ with Construction Documents to Architect. Request clarifications.

3.2 PREPARATION

A. Protection of In-Place Conditions:

1. Protect surfaces, and materials to remain that are not being refinished or repaired from damage.
2. Protect plantings, ground cover, sidewalk and parking surfaces from repair and cleaning operations, chemicals, equipment and personnel traffic, and debris.

B. Surface Preparation:

1. Pressure wash and prepare surfaces to be repaired and/or refinished as recommended by manufacturer of proposed finish material or coating.
2. Remove damaged or defective materials and finishes that are spalled, not fully removed, or are not fully secured or attached to structure/substrate.
3. Cracks in Finishes:

a. Inconspicuous Locations, for Sealant Repair: Route cracks to width recommended, and prepare, in accordance with sealant manufacturer recommendations.
b. Conspicuous Locations: Cut and remove area(s) as indicated on Drawings or approved by Architect, for consistent appearance of repairs.

4. Loose and Spalling Concrete or Cementitious Coatings:

a. Remove spalling concrete and finishes to Architect approved perimeter.
b. Spalled Concrete: Notify Architect or Structural Engineer of spalls that expose, or potentially expose, wall reinforcing. Request direction.

1) Exposed Reinforcing: Minimum requirements include:

a) Clean and remove rust and scale, to bright metal surface.
b) Chip or cut concrete, without damage to reinforcing, to provide concrete edges at 90 degrees to plane of reinforcing. Feathered edges of concrete to steel surface is not acceptable.
c) Where spalling extends into or beyond depth of reinforcing, remove concrete beyond reinforcing as recommended by Architect, or Structural Engineer.

c. Spalling or Loose Stucco or Parge Coat: Sound and remove delaminated stucco and/or parge coats. Extend removal to Architect approved perimeter.

5. Damaged EIFS Finishes:

a. Remove and replace EIFS in areas requiring localized repair to Architect approved perimeter.

1) Limit the depth of cuts through the EIFS lamina into the insulation board to prevent damage of the substrate.
2) Remove damaged insulation board by hand or in a manner which minimizes damage to the substrate.
3) Remove and replace damaged substrate as required by conditions that may become evident as a result of the demolition process.

b. Flashing and Water-Resistive Barrier Repair:

1) Repair flashing and/or correct conditions in locations indicated on the project drawings and as described in section.
2) Inspect the condition of the water-resistive barrier membrane and transition materials.
3) Repair or replace damaged water resistive barrier system components.
4) Install replacement components in a sequence and manner to provide shingle-laps and provide a continuous path for moisture drainage to the exterior of the wall via the flashing.
5) Mix and apply EIFS materials in accordance with printed instructions for the products being used. Match existing finish texture and level.

c. Sealant Joint Repair:

1) Remove damaged and worn sealant at joints in EIFS in accordance with manufacturer's printed instructions.
2) Protect surrounding EIFS from damage during removal of existing sealant.
3) Replace sealant with approved low-modulus material recommended by the sealant manufacturer for use with EIFS.
4) Install sealant in accordance with sealant manufacturer’s published installation instructions for use with EIFS materials. Use sealant primer recommended by the sealant manufacturer on base coat surface if specified by the sealant manufacturer.

d. Surface Repair and Recoating:

1) Apply unreinforced skim coat to existing finish surfaces to level surface in preparation, as required.
2) Apply finish in accordance with manufacturer's written instructions for the specified product.

C. Demolition and Removal:

END OF SECTION

SECTION 09 2216 - NON-STRUCTURAL METAL FRAMING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Non-load-bearing steel framing.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Delegated Design Submittals:

1. Provide delegated design submittal for framing that exceed non-bearing stud or ceiling/soffit capacity or height, and not included in Division 05 metal framing specifications.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers:

1. ClarkDietrich Building Systems.
2. CEMCO; California Expanded Metal Products Co.
3. MarinoWARE.
4. MBA Building Supplies.
5. Telling Industries.

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, G40 (Z120), hot-dip galvanized unless otherwise indicated.

B. Studs and Runners - Ceiling or Soffit Framing: ASTM C 645. Use either conventional steel studs and tracks or embossed, high-strength steel studs and tracks.

1. Steel Studs and Runners: Subject to compliance with requirements.

    a. Minimum Base-Metal Thickness: As required by horizontal deflection performance requirements, but not less than 0.0190 inch.
    b. Depth: As indicated on Drawings.

2. Embossed, High Strength Steel Studs and Tracks: Roll-formed and embossed with surface deformations to stiffen the framing members so that they are structurally comparable to conventional ASTM C645 steel studs and tracks.

    a. Minimum Base-Metal Thickness: As required by horizontal deflection performance requirements, but not less than 0.0190 inch.
    b. Depth: As indicated on Drawings.

2.3 SUSPENSION SYSTEMS

A. Furring Channels (Furring Members):

1. Cold-Rolled Channels: 0.0538-inch (1.367-mm) uncoated-steel thickness, with minimum 1/2-inch (13-mm) wide flanges, 3/4 inch (19 mm) deep.
2. Steel Studs and Runners: ASTM C 645.

    a. Minimum Base-Metal Thickness: 0.0329 inch (0.836 mm).
    b. Depth: 3-5/8 inches (92 mm).

3. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch (22 mm) deep.

    a. Minimum Base-Metal Thickness: 0.0329 inch (0.836 mm).

4. Resilient Furring Channels: 1/2-inch (13-mm) deep members designed to reduce sound transmission.

    a. Configuration: hat shaped.

2.4 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.

B. Isolation Strip at Exterior Walls: Provide one of the following:

1. Asphalt-Saturated Organic Felt: ASTM D 226, Type I (No. 15 asphalt felt), nonperforated.
2. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8 inch (3.2 mm) thick, in width to suit steel stud size.

2.5 PERFORMANCE

A. Delegated Design:

1. Provide delegated design for stud design if Structural Drawings and specifications do not address load bearing metal framing and if studs exceed requirements of this Section.

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. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.

1. Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.

3.3 INSTALLATION - GENERAL

A. Installation Standard: ASTM C 754.

1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

C. Align and secure top and bottom runners at 24 inches (600 mm) on center, maximum.

D. Install bracing at terminations in assemblies.

E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.4 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 (406 mm) 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.

END OF SECTION

SECTION 09 2513.13 - ACRYLIC PLASTER FINISH

PART 1 GENERAL

1.1 SUMMARY

A. Textured finish system for exterior soffit and ceiling surfaces.

1.2 RELATED REQUIREMENTS

A. Structural drawings and/or Section 092216 – Non-Structural Metal Framing for framing and support of ceilings and soffits.

1.3 REFERENCES

A. ASTM Standards:

1. C1177, Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
2. D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
3. E84, Standard Test Method for Surface Burning Characteristics of Building Materials.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Selection Samples: Submit manufacturer's standard range of samples illustrating available coating colors and textures.

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Finish manufacturer shall be a company with at least thirty years of experience in manufacturing acrylic plaster and specialty finishes and regularly engaged in the manufacture and marketing of products specified herein.

B. Installer's Qualifications: Installer shall be qualified to perform the work specified by reason of experience, and be approved by manufacturer. Installer shall have at least 5 years of experience in acrylic plaster or specialty finish application, and shall have completed at least 3 projects of similar size and complexity.

C. Installer's Qualifications: Installer shall be qualified to perform the work specified by reason of experience, and be approved by manufacturer. Installer shall have at least 5 years of experience in acrylic plaster or specialty finish application, and shall have completed at least 3 projects of similar size and complexity.

D. Mock-Ups:

1. Construct mock-up of typical application on specified substrate, size as indicated on drawings, and including flashings, joints, and edge conditions.
2. Install a mock-up of the finished ceiling surface for evaluation and approval by the Architect, and Owner.
3. Mock-up shall include edge and joint conditions, and finish, minimum.
4. Final approval of system, finish, and color will be from approved mock-up.
5. Upon Architect approval, mock-up may remain as part of the Work, if undamaged at time of Project completion.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver products in original packaging, labeled with product identification, manufacturer, and batch number.

B. Store products in a dry area with temperature maintained between 50 and 85 degrees F (10 and 29 degrees C). Protect from direct sunlight.

C. Handle products in accordance with manufacturer's printed instructions.

1.7 FIELD CONDITIONS

A. Do not prepare materials or apply materials under conditions other than those described in the manufacturer's written instructions.

B. Do not prepare materials or apply materials during inclement weather unless areas of installation are protected. Protect installed materials and finishes from inclement weather until dry.

1.8 WARRANTY

A. Provide manufacturer’s standard limited warranty.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire Characteristics:

1. Flammability: Pass, when tested in accordance with NFPA 285.
2. Ignitibility: No sustained flaming when tested in accordance with NFPA 268.

B. Mildew Resistance: No growth supported on finish coating during 28 day exposure period, when tested in accordance with ASTM D3273.

2.2 MANUFACTURERS

A. Basis of Design: Sto Corp; StoQuik Gold Finish System, www.stocorp.com.

2.3 MATERIALS

A. Finishes, primers, adhesives, stains and any other associated materials used with the finish shall be Class A building materials based on testing in accordance with ASTM E84. VOC (Volatile Organic Content) shall be less than 50g/L and shall comply with South Coast AQMD Rule 1113 requirements.

B. Ceiling and Soffit Board:

1. Basis of Design: DensGlass® glass mat faced gypsum sheathing as manufactured by Georgia Pacific in compliance with ASTM C1177.

C. Surface Reinforcement:

1. Sto Mesh – nominal 4.5 oz/yd2 (153 g/m2) glass fiber reinforcing mesh treated for compatibility with Sto materials.

D. Base Coat – polymer modified portland cement base coat:

1. Sto BTS Plus – factory blended dry powder high build base coat mixed with potable water.

E. Primer:

1. StoPrime® – acrylic-based smooth primer for use with Sto Smooth Finishes (Stolit Freeform applied to create a smooth wall finish).

F. Finish:

1. Stolit – high performance decorative and protective acrylic-based textured finish with integral color.
2. Finish: Smooth or fine texture, per approved mock-up.
3. Color: As selected by Architect from manufacturer’s full range, or as indicated on drawings.

2.4 ACCESSORIES

A. Control Joints:

1. Basis of Design, Manufacturer: Plastic Components, Inc., www.plasticomponents.com.
2. Plastic “M” control joint.
3. Reveal Size: 1/4 inch, verify.
4. Locations: Soffits, at 24 inches o.c., or as indicated in drawings.

PART 3 EXECUTION

3.1 PREPARATION

A. Confirm framing installed in accordance with structural drawings, and acceptable to installer.

3.2 INSTALLATION

A. Install in accordance with EIFS manufacturer's instructions and ASTM C1397.

B. Ceiling and soffit board must be installed in conformance with the applicable building code and manufacturer’s written installation instructions. Ceiling and soffit board surface must be clean, dry, and free of surface contamination. Surface shall not have planar irregularities in excess of 1/16 inch (1.6 mm) and shall be free of voids, cracks, and other surface defects.

C. Mixing:

1. Mix manufacturer’s products in accordance with manufacturer’s published literature. Refer to applicable Product Bulletins for specific information on use, handling, application, precautions, and limitations of specific products.

D. Application:

1. Install corrosion proof termination accessories per ASTM D1784 (PVC) with perforated flanges for keying of the base coat at junctures with penetrations such as soffit vents, electrical fixtures, and with abutting walls and columns. Install corrosion proof control joints per ASTM D1784 (PVC) with perforated flanges for keying of the base coat at intervals as required by the ceiling and soffit board manufacturer. Refer to manufacturer’s guide details.
2. Reinforce perforated flanges of accessories with minimum 4 inch (102 mm) wide strips of manufacturer’s detail mesh or manufacturer’s recommended mesh embedded in base coat. Tape joints with minimum 4 inch (1023 mm) wide manufacturer’s mesh, embedded in base coat. Allow base coat to dry.
3. Install nominal 1/8-inch (3 mm) base coat by trowel to the soffit/ceiling board surface. Work in strips of 40 inches (1016 mm), and immediately embed manufacturer’s mesh into the wet base coat by troweling from the center to the edge of the mesh. Overlap mesh installed at perforated accessory flanges by installing mesh up to the termination bead of the accessory. Overlap mesh not less than 2-1/2 inches (64 mm) at mesh seams and feather at seams. Double wrap all inside and outside corners with minimum 8-inch (203 mm) overlap in each direction (except where corner bead is used at outside corners lap mesh over perforated flange of accessory). Avoid wrinkles in the mesh. The mesh must be fully embedded so that no mesh color shows through the base coat when it is dry. Re-skim with additional base coat if mesh color is visible. Do not install base coat and mesh onto solid (unperforated) portions of accessories.
4. When the base coat application is dry apply the primer by brush or roller to the entire base coat surface.
5. Finish Application: When the primer application is dry apply the finish by trowel. Apply finish in a continuous application, and work to a wet edge. Float the finish to achieve the desired texture.

3.3 CLEANING

A. Clean surfaces and work areas of foreign materials resulting from acrylic plaster finish and installation operations.

3.4 PROTECTION

A. Protect completed work from damage and soiling by subsequent work.

B. Seal penetrations through the finished surface with backer rod and sealant or other appropriate means.

END OF SECTION

SECTION 09 9000 - PAINTING AND COATING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes.

1. Exterior paint systems.

1.2 REFERENCES

A. Definitions:

1. Sheen Levels: ASTM D523.

a. Flat: Five gloss units at 60 degrees and 10 gloss units at 85 degrees, maximum.
b. Eggshell: 10 to 25 gloss units at 60 degrees and 10 to 35 gloss units at 85 degrees.
c. Satin: 20 to 35 gloss units at 60 degrees and 35 gloss units minimum at 85 degrees.
d. Semigloss: 35 to 70 gloss units at 60 degrees.
e. Gloss: 70 gloss units at 60 degrees, minimum.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination Procedures:

1. Coordinate work results of this Section with other work.
2. Coordinate work results of this Section with existing conditions.

1.4 ACTION SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide complete list of all products to be used, with the following information for each:

1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
2. MPI product number (e.g. MPI #).
3. Cross-reference to specified coating system(s) product is to be used in; include description of each system.
4. Manufacturer's installation instructions.

C. Samples:

1. Draw Down Samples: Each type of paint system and each topcoat color and gloss.

a. Label each Sample for paint system, location, and substrate.

1.5 INFORMATIONAL SUBMITTALS

A. Manufacturer Recommendations: Provide written proof that manufacturer recommends specified preparation and coatings for applications indicated.

1. If any proposed preparation and/or coating is not recommended by manufacturer, provide manufacturer's recommendations.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Storage and Handling Requirements:

1. Store paint products in sealed containers until ready for use.

B. Container Label: Include manufacturer's name, type of coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

1.8 FIELD CONDITIONS

A. Apply materials only when surface and ambient temperatures are within temperature ranges required by paint product manufacturer.

B. Apply exterior coatings when rain or snow are not occurring or forecasted, and when relative humidity is inside humidity ranges, and moisture content of surfaces is within acceptable levels required by paint product manufacturer.

1.9 WARRANTY

A. See Section 017000 - Execution and Closeout Requirements for additional warranty requirements.

B. Warranty: Include coverage for bond to substrate.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Basis of Design: PPG Paints.

B. Products: Scheduled in this Section.

C. Provide coating products from the same manufacturer to the greatest extent possible.

2.2 PAINT, GENERAL

A. Colors: Architect selected.

B. Paint Systems: Primers, intermediate coats and topcoats compatible with substrates and one another.

C. Coatings: Ready mixed or field catalyzed.

D. Preparation:

1. Mix to soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coating.
2. Blend tints and catalyzers to uniform consistency and color, capable of drying or curing free of streaks or sags.

2.3 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of coated surfaces.

2.4 SOURCE QUALITY CONTROL

A. Tests:

1. Testing: Owner may engage a testing agency to sample paint materials delivered to Project site or taken from Supplier facility.
2. Acceptance Criteria: Products follow specified requirements.

B. Non-Conforming Work: Remove materials from substrates, pay for testing replacement products, and repaint surfaces.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verification of Conditions: Verify substrates are ready to receive Work.

B. Preinstallation Testing: Test moisture content of substrate does not exceed the following:

1. Portland Cement Plaster: 12 percent.

C. EIFS: Verify surface meets manufacturer's recommended requirements.

1. If surfaces do not meet requirements, engage manufacturer and / or applicator with minimum of five years experience to repair / prepare surfaces for new coatings.

3.2 PREPARATION

A. Preparation: Mask and protect adjoining work or finishes when applying coatings at Project.

B. Cleaning: Remove substances that could impair paint bond, including dust, oil, grease, and incompatible coatings.

1. Concrete and CMU Surfaces: Remove dirt, loose mortar, scale, efflorescence and chalk. Remove oil and grease by scrubbing with cleaning solution recommended by finish coating manufacturer. Rinse with clean water and allow surface to dry.
2. Uncoated Steel: Remove rust and loose mill scale. Clean per SSPC-SP2 Hand Tool Cleaning and SSPC-SP3 Power Tool Cleaning.

3.3 APPLICATION

A. Follow manufacturer instructions for application method, thickness of coatings, and number of coats.

1. Apply finishes when surfaces are dry. Allow applied coats to dry before next coat is applied.
2. Apply each coat of paint slightly darker than preceding coat.
3. Apply coatings to uniform appearance.
4. Sand metal surfaces lightly between coats.
5. Leave testing agency, equipment identification, and performance labels unpainted.

B. Appearance:

1. Apply paints without imperfections.
2. Edges and Color Breaks: Produce sharp edges.

3.4 CLEANING

A. Remove rubbish, empty cans, rags, and other discarded materials.

B. Remove splattered paints. Protect adjacent surfaces from damage.

3.5 PROTECTION

A. Protect painted surfaces from subsequent Work. Touch up and restore damaged painted surfaces.

3.6 EXTERIOR PAINTING SCHEDULE

A. Galvanized Steel: (Includes HM metal doors and frames).

1. Preparation: Clean and prepare existing metal surfaces with Clean 'n Etch by Great Lakes Laboratories in accordance with manufacturer’s instructions or paint manufacturer's recommended product and system.
2. Primer:

    a. PPG Paints: Pitt-Tech Plus DTM Primer 4020PF.

3. Latex Topcoat: Semigloss finish.

    a. PPG Paints: Pitt-Tech Plus EP DTM 90-1610.

B. Aluminum:

1. Preparation: Clean and prepare existing metal surfaces in accordance with paint manufacturer's recommended product and system.
2. Primer:

    a. PPG Paints: Pitt-Tech Plus 4020PF.

3. Latex Topcoat: Semigloss finish.

    a. PPG Paints: Pitt-Tech Plus EP DTM 90-1610.

C. Portland Cement Plaster: (Note: Not intended for stucco with integrally colored Sto finish).

1. Alkali Resistant Primer:

    a. PPG Paints: PERMA-CRETE Interior/Exterior Alkali Resistant Primer.

2. Acrylic Latex Topcoat: Satin finish.

    a. PPG Paints: SPEEDHIDE Exterior 100% Latex.

END OF SECTION

SECTION 09 9600 - HIGH-PERFORMANCE COATINGS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. High performance coatings.
2. Surface preparation.

1.2 REFERENCE STANDARDS

A. ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating; 2023.

B. MPI (APL) - Master Painters Institute Approved Products List; Master Painters and Decorators Association; Current Edition.

C. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

D. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).

E. SSPC-SP 2 - Hand Tool Cleaning; 2024.

F. SSPC-SP 6/NACE No.3 - Commercial Blast Cleaning; 2006.

1.3 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide complete list of all products to be used, with the following information for each:

1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
2. MPI product number (e.g. MPI #47).
3. Cross-reference to specified coating system(s) product is to be used in; include description of each system.
4. Manufacturer's installation instructions.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience.

B. Mockups: Provide mockup of each coating system, color, and texture selected for approval by Architect. Locate as indicated or as directed.

1. Personnel providing mockup shall be same personnel completing work of this Section.
2. Upon Architect approval, mockups may remain as part of the work if undamaged at Project completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Coating Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.6 FIELD CONDITIONS

A. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

B. Do not apply exterior coatings during rain, or when relative humidity is outside the humidity ranges required by the coating product manufacturer.

C. Do not install materials when temperature is below 55 degrees F (13 degrees C) or above 90 degrees F (32 degrees C).

D. Restrict traffic from area where coating is being applied or is curing.

1.7 WARRANTY

A. See Section 017000 - Execution and Closeout Requirements for additional warranty requirements.

B. Special Warranty, General: Manufacturer's standard project-specific form in which manufacturer agrees to repair or replace elastomeric coating that demonstrates deterioration or failure within warranty period specified due to material failure under normal use. Failure include water penetration through coating.

1. Warranty Period: Ten years from date of Substantial Completion.

C. Warranty: Include coverage for bond to substrate.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Provide high performance coating products from the same manufacturer to the greatest extent possible.

2.2 HIGH-PERFORMANCE COATINGS

A. Provide coating systems that meet the following minimum performance criteria, unless more stringent criteria are specified:

2.3 TOP COAT MATERIALS

A. Coatings - General: Provide complete multi-coat systems formulated and recommended by manufacturer for the applications indicated, in the thicknesses indicated; number of coats specified does not include primer or filler coat.

B. Elastomeric Coating:

1. Number of Coats: Two.
2. Top Coat(s): Exterior Pigmented Elastomeric, Water Based; MPI #113.

a. Color and Sheen: As selected by Architect or as scheduled on Drawings, verify.
b. Products, Basis of Design:

1) Dow; DOWSIL ALLGUARD Silicone Elastomeric Coating: www.dow.com/#sle.

3. Properties:

a. Volatile Organic Compound (VOC) Content: 4 g/L maximum.
b. Moisture-Vapor Transmission, ASTM D 1653: 43 perms, minimum.
c. Hardness, ASTM D 2240: 38 durometer Shore A.
d. Tensile Strength, ASTM D 412: 145 lbf/sq. in. (1.0 MPa), minimum.
e. Elongation, ASTM D 412: 600 percent, minimum.
f. Fungus Resistance, ASTM D 3274: No growth.
g. Mold Resistance, ASTM D 3273: No growth.
h. Solids Content, ASTM D 2369: Not less than 55 percent by weight.

C. Shellac: Pure, white type.

2.4 PRIMERS

A. Primers: Coating manufacturer recommended type(s).

2.5 ACCESSORY MATERIALS

A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding

materials, and clean-up materials as required for final completion of coated surfaces.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify existing conditions before starting work.

B. Preinstallation Testing: Prior to application of elastomeric coatings, perform the following tests to verify condition of substrate in accordance with manufacturer’s instructions:

1. Adhesion: Perform substrate field adhesion tests on each substrate to determine if primer is required to satisfactorily adhere elastomeric coatings to substrates.
2. Alkalinity: Verify substrate is within alkalinity range acceptable to manufacturer.
3. Moisture Level: Verify substrate moisture content is acceptable to manufacturer.

C. Do not begin application of coatings until substrates have been properly prepared.

D. Verify that substrate surfaces are ready to receive work as instructed by the coating manufacturer. Obtain and follow manufacturer's instructions for examination and testing of substrates.

1. Engage manufacturer's authorized representative to be present during preinstallation testing and provide written report to Architect confirming acceptance of results or remediation requirements.

E. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

F. Proceed with coating application only after unacceptable conditions have been corrected.

3.2 PREPARATION

A. Protect adjacent surfaces and materials not receiving coating from spatter and overspray; mask if necessary to provide adequate protection. Repair damage.

B. Clean surfaces of loose foreign matter.

1. Clean substrates to remove contaminates and foreign material by pressure cleaning, wire brushing, grinding or other method recommended by elastomeric coatings manufacturer.

C. Remove substances that would bleed through finished coatings. If unremovable, seal surface with shellac.

D. Remove finish hardware, fixture covers, and accessories and store.

E. Existing Painted and Sealed Surfaces:

1. Remove loose, flaking, and peeling paint. Feather edge and sand smooth edges of chipped paint.
2. Clean with mixture of trisodium phosphate and water to remove surface grease and

foreign matter.

F. Concrete:

1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

G. Masonry:

1. Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.

H. Galvanized Surfaces:

1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
2. Prepare surface according to SSPC-SP 2.

I. Ferrous Metal:

1. Solvent clean according to SSPC-SP 1.
2. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning in accordance with SSPC-SP 6/NACE No.3, and protect from corrosion until coated.

J. Substrate Repair: Repair deteriorated or damaged substrates, repair masonry joints, and fill cracks, voids, honeycomb, and other defects using materials as recommended by manufacturer. Allow patching materials to cure.

3.3 PRIMING

A. Apply primer to all surfaces, unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.

B. Concrete: Prior to priming, patch with masonry filler to produce smooth surface.

C. Concrete Masonry: Apply masonry filler to thickness required to fill holes and produce smooth surface; minimum thickness of 30 mils (0.8 mm).

3.4 COATING APPLICATION

A. Apply coatings in accordance with manufacturer's written instructions, to thicknesses specified and recommendations in MPI - Architectural Painting and Specification Manual.

1. Apply elastomeric coating from top to bottom of substrate. Work down vertical surface and cover rundown in process. Avoid excessive overlapping.
2. Apply coating free of cloudiness, spotting, laps, brush marks, roller tracks, and other surface imperfections. Cut in color breaks and terminations with sharp lines.
3. Apply additional coats as required to provide cured film with uniform finish, color, and appearance.
4. Provide a minimum of two coats of not less than 20 mil total wet film thickness (10 mil wet

film thickness per coat) to provide finished dry film thickness of not less than 10 mils.

B. Apply in uniform thickness coats, without runs, drips, pinholes, brush marks, or variations in color, texture, or finish. Finish edges, crevices, corners, and other changes in dimension with full coating thickness.

3.5 FIELD QUALITY CONTROL

A. Owner may retain testing agency to perform the following tests:

1. Verification that substrate preparation meets requirements.
2. Testing and certification that coating materials comply with requirements.
3. Testing of application for compliance with adhesion and film thickness requirements.

B. If testing indicates products or work do not meet requirements, Contractor to remove non-complying materials and materials applied over non-complying substrates, and correct application at no additional cost to Owner.

3.6 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

B. Clean surfaces immediately of overspray, splatter, and excess material.

C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

3.7 PROTECTION

A. Protect finished work from damage.

END OF SECTION

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