

PROJECT MANUAL

FOR

NOVUM BAPTIST CHURCH

SANCTUARY ADDITION

1629 Novum Church Road
Reva, Virginia 22735

Architect's Project #2418

November 25, 2025



16125 Raccoon Ford Rd
Culpeper, Virginia 22701
540-829-2590 (v)
www.sanders-pc.com

NOVUM BAPTIST CHURCH
SANCTUARY ADDITION

Project #2418

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NOVUM BAPTIST CHURCH
SANCTUARY ADDITION

Project #2418

INVITATION TO BID FORM

Submit Bids: Novum Baptist Church
1629 Novum Church Road
Reva, VA 22735

Bids may be submitted in PDF format via email to dsanders@sanders-pc.com

Bid questions: SANDERS Architecture, PC
16125 Raccoon Ford Road
Culpeper, VA 22701
540-829-2590
dsanders@sanders-pc.com

Bids Close: **Tuesday, December 23, 2:00pm**

Pre-Bid Meeting: **Held on site at 10:00am**, Wednesday, December 3, 2025

PROJECT DESCRIPTION: (1) story w/ basement 1,102 SF footprint Sanctuary & Classroom Addition & interior toilet and vestibule alterations

DRAWINGS & PROJECT MANUAL: Bidding is by select invitation only.

Project Documents will be available for PDF download at www.sanders-pc.com
See Project Downloads / Novum Baptist

BID GUARANTEE: None required.

EXPLANATION TO BIDDERS: Any questions regarding the meaning or interpretation of the Construction Documents or other documents relating to the performance of this work must be requested in writing to allow sufficient time that a reply reach all bidders before the submission of their bids. Any interpretations made will be in the form of an addendum and will be furnished to all perspective bidders. Receipt of addendum must be acknowledged on the bid form. Oral explanations given before the contract award will not be binding.

ALTERNATES: Bidders are encouraged to quote on substitute products by listing them on the bid form and by indicating the additional cost or credit. The Owner reserves the right to reject proposed substitutes. The bid price for each substitute shall include all costs to all trades affected by the substitute and all costs to incorporate the substitute into the project. Later requests for additional monies or time for substitutes will not be permitted.

SITE EXAMINATION: Bidders must visit the site, examine the construction documents and take other steps as may be necessary to ascertain the nature and location of the work. Further, bidders should investigate observable site conditions that may have bearing on the performance, supervision, material staging, costs and time to complete the work. Failure to take such steps will not relieve the Contractor of his responsibility to successfully complete the work. Requests for extras relating to existing conditions readily observable at the time of bidding will be denied.

BIDDERS QUALIFICATION: Before a bid is considered for award, the bidder may be requested by the Owner or his agent to give evidence of his previous experience in performing comparable work, financial resources, list of proposed sub-contractors and all other criteria the Owner deems relevant to the successful performance of the contract.

SUBMISSION OF BIDS: Submit hard copy bids in duplicate with original signatures on the enclosed bid form with additional attachments including proposed substitutions and unit prices as requested or proposed. Bids may be e-mailed to the Architect prior to the bid deadline with an original Bid form sent separately within 24 hours. Bids will be opened and reviewed by the Owner & Architect. A public opening will not be held.

BID MODIFICATION: Bids may be modified or withdrawn by written notice prior to bid closing. Late bids or modifications may not be accepted. Bids shall be valid for 60 days.

AWARD OF CONTRACT: Award of the Contract will be made by the Owner after review of bids. The Owner may, when in his interest, reject or accept any or all bids or waive any informality in the bids received.

INSURANCE SPECIFICATIONS

INSURANCE SPECIFICATIONS

The contractor shall carry Liability Insurance in the amount specified below, including the contractual liability assumed by the Contractor, and shall deliver Certificate of Insurance from carriers acceptable to the owner specifying such limits. The Certificate shall show the Owner named as an additional insured for the Commercial General Liability, Automobile Liability, including owned, non-owned and hire car coverage,. The coverage shall be provided by a carrier(s) rated "Excellent" by A.M. Bests. . In addition the insurer shall agree to give the Owner 30 days notice of its decision to cancel coverage.

1. Workers' Compensation and Employer's Liability

Statutory Virginia Limits

Employers' Liability Insurance - \$500,000 for each accident or aggregate disease

2. Comprehensive Automobile Liability

Combined Single Limit - \$1,000,000 each occurrence

3. Commercial General Liability

Combined Single Limit - \$1,000,000 each occurrence

Including

- A. Completed Operations/Products
- B. Contractual Liability for Specified Agreement
- C. Personal Injury
- D. (XCU) Explosion, Collapse and Underground Coverage
- E. Broad Form Property Damage

4. Excess/Umbrella - \$1,000,000 each occurrence

NOTE 1: Contractual Liability covers the following indemnity agreement: "The Contractor shall indemnify and hold harmless the owner against and from all liability, claims, damages and costs, including attorney's fees of every kind and nature and attributable to bodily injury, sickness, disease or death or to damage or destruction of property resulting from or in any manner arising out of or in connection with the project and the performance of the work under this contract."

NOTE 2: To satisfy the requirements of 3D above, the classification code numbers appearing on the Comprehensive General Liability coverage parts shall not exclude the symbols "X-C-U".

NOTE 3: Property Insurance. The Contractor shall purchase and maintain property insurance upon the entire work at the site and such materials and equipment as are stored at the site or at an agreed upon location

for the amount of the initial contract sum as well as subsequent modifications thereto for the entire work at the site on a replacement cost basis without voluntary deductibles. This insurance shall include the interests of the Owner, the Contractor, Subcontractors, and Sub-subcontractors in the work and shall insure against the perils of fire and extended coverage, and shall include “all risk” insurance for physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for architect’s services and expenses required as a result of such insured loss. If the property insurance has minimum deductibles, the Contractor shall pay costs not covered because of such deductibles.

NOTE 4: The intent of this insurance specification is to provide the coverage required and the limits expected for each type of coverage. With regard to the Automobile Liability and Comprehensive General Liability, the total amount of coverage can be accomplished through any combination of primary and excess umbrella insurance and self-insured reserves. The Contractor shall submit evidence of self-insurance to the Owner for its review and approval in addition to the required certificate of insurance. Such evidence shall consist of, at a minimum, current financial statements which clearly indicate the reserves committed to the Contractor’s self-insurance program. The Contractor shall for the duration of the project maintain the self-insurance reserves at a level not less than that which is stated by the Contractor at the time that the Contract is executed. However, the total insurance protection provided for Comprehensive General Liability protection or for Comprehensive Automobile Liability protection, either individually or in combination with the Excess Liability Umbrella, must total \$2,000,000 per occurrence.

END OF SECTION

BID FORM

DATE:

PROJECT: SANCTUARY ADDITION
Novum Baptist Church
1629 Novum Church Road
Reva, VA 22735

TO: Fred Henshaw
Novum Baptist Church
1629 Novum Church Road
Reva, VA 22735

FROM: Company Name _____
Address _____

Phone _____
Project Manager _____
Field Superintendent _____

Having become thoroughly familiar with the Terms and Conditions of the proposed Contract Documents and with local conditions affecting the performance and cost of the Work, and having inspected the site in all particulars, the undersigned proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for a Lump Sum of:

I. Base Bid \$ _____

& No/100 dollars

Bidders will identify any equipment to be pre-ordered and this shall be outlined in detail at the pre-bid meeting, Meeting minutes from said pre-bid meeting shall be incorporated into the final contract documents.

BID ALTERNATES

Add Alternate 1 (elevator replacement) \$ _____

Add Alternate 2 (TBD) \$ _____

II. ADDENDA

Receipt of the following Addenda are acknowledged:

___ none ___ Addendum #1 ___ Addendum #2 ___ Addendum #3 ___ Addendum #4

Allowances: (not used)

Unit Costs: Removal of Rock greater than (1) CY in volume _____ CY

III. SUBCONTRACTORS

Contractors shall indicate below the name of mechanical, plumbing, electrical and fire prevention subcontractors providing materials or services incorporated in the cost of Work. All Subcontractor/Suppliers are subject to approval by Owner.

<u>Name</u>	<u>Subcontractor</u>	
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

IV. CONSTRUCTION BONDS

If this option is exercised by owner the actual cost of the premium to the Contractor (as paid to the bonding company), shall be the cost of the Performance Bond and the Labor and material Payment Bond in amounts equal to 100% of the Contractor Sum.

Actual cost of Payment and Performance Bonds \$ _____
(This amount is not to be included in base bid)

V. EXCEPTIONS

Certify either "A" or "B" below

___ A. Our Quotation is in exact accordance with the Specifications, Drawings Terms and Conditions and other requirements of this Request for Quotation with NO EXCEPTIONS

___ B. Our Quotation is in exact accordance with the Specifications, Drawings Terms and Conditions and other requirements of this Request for Quotation with no exceptions other than those listed in each division of our proposal. (list these exceptions, clarifications or assumptions within each division).

VI. SCHEDULE

General scheduling requirements shall be as described in the General and Supplementary General Conditions of the Contract for Construction.

Specific scheduling requirements shall be as described in the project manual Timeline. Please indicate any deviations to the proposed timeline with this bid.

Our proposed time to complete project in calendar days is _____.

A proposed schedule, sequence of work and schedule of values based upon monthly projections may be requested with your bid response for this project.

VII. CHANGES IN THE WORK

Cost to Owner for any change in the Work shall be calculated at actual cost to the contractor plus overhead and profit, not to exceed 10 percent of the actual cost for additions and deletions.

VIII. INFORMATION CONCERNING BIDDERS

Internal Revenue Service (IRS) regulations require the Contractor's Federal I.D Number or Social Security Number be provided before payment can be made.

SUMMARY OF BID

Base Bid	\$ _____	00/100
Bond (base bid)	\$ _____	00/100
Alternate 1	\$ _____	00/100
Alternate 2	\$ _____	00/100
Total Bid	\$ _____	00/100

Does not include Interior Design Add Alternates

IX. SIGNATURE OF PROPOSAL

Signature of Officer or Principal _____
Name and Title _____
Date _____
Company Name _____
Company Address _____

NOVUM BAPTIST CHURCH SANCTUARY ADDITION – REVA, VIRGINIA

PROPOSED CONTRACT

The proposed form of Contract between Owner and Contractor for this work is AIA Document A101-2017.

END OF SECTION

CERTIFICATE & RELEASE

WAIVER & RELEASE OF LIEN

PROJECT: (name and address)

OWNER: (name and address)

Contract or Reference No. _____

WHEREAS THE UNDERSIGNED [] Contractor, [] Subcontractor, [] Supplier, [] Architect or Engineer, or [] _____ has provided labor, services, materials or equipment, for the above project, under an agreement with:

_____ In its capacity as [] Owner or Owner's agent, [] Contractor, [] Subcontractor, [] Architect or Engineer.

Section A: (check and initial ONLY ONE of the following)

_____ **PARTIAL WAIVER AND RELEASE: IN CONSIDERATION OF PARTIAL PAYMENT** for labor, services, materials or equipment provided in the amount of: _____ Dollars (\$ _____) covering the following Partial Payment Request(s) or Invoice(s): (attach additional pages if necessary)

DATE: _____ **PAY REQUEST or INVOICE NUMBER** _____ **AMOUNT:** _____

together with any previous payment(s) already received, but excluding any retainage or any labor, services, materials or equipment provided after the date of: _____, 2008.

_____ **FINAL WAIVER AND RELEASE: IN CONSIDERATION OF FINAL PAYMENT** for all labor, services, materials or equipment provided in the amount of: _____ Dollars (\$ _____)

THE UNDERSIGNED DOES HEREBY WAIVE AND RELEASE all bond claims, liens, or claims or right of lien, statutory or otherwise, against the property, project, Owner and any sureties, for labor, services, materials or equipment, as provided by the Undersigned, but only to the extent of payment received, as indicated above as limited below:

Section B: (check and initial ONLY ONE of the following)

_____ **CONDITIONAL RELEASE: THIS WAIVER AND RELEASE IS CONTINGENT UPON RECEIPT OF PAYMENT** and final bank clearance of said remittance in the above amount. The remittance identified as payment and endorsed by the Undersigned marked "paid" or otherwise cancelled by the bank against which said remittance was drawn, shall constitute conclusive proof that said invoice or pay request was paid and that payment thereof was received by the Undersigned, and thereupon, this waiver and release shall become effective automatically without the requirement of any further act, acknowledgement or receipt on the part of the Undersigned.

ADDITIONALLY, THE UNDERSIGNED ACKNOWLEDGES RECEIPT of the total amount of \$ _____ in previous payment and does hereby grant unconditionally release of all above described claims for that amount.

OR

_____ **UNCONDITIONAL RELEASE: THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF PAYMENT** in the above amount for labor, services, materials or equipment as described herein, and does hereby grant this release unconditionally.

THE PERSON SIGNING below does hereby certify that he or she is fully authorized and empowered to execute this instrument and to bind the Undersigned hereto, and does in fact so execute this instrument.

COMPANY NAME: _____

ADDRESS: _____

State of: _____)

SS _____)
County of: _____)

Subscribed and sworn before me this

_____ day of _____, 2008.

NOTARY PUBLIC:

NOVUM BAPTIST CHURCH SANCTUARY ADDITION – REVA, VIRGINIA

GENERAL CONDITIONS

The “General Conditions of the Contract for Construction”, AIA Document A201-2007, are a part of the Contract Documents and are incorporated by reference.

END OF SECTION

Section 00800 - SUPPLEMENTARY CONDITIONS

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

1.1 Basic Definitions

Add the following to 1.1.2

- 1.1.2.1 The proposed form of contract for this project is to be the Standard Form of Agreement Between Owner and Contractor, AIA Document A101, latest edition.

ARTICLE 1 - GENERAL PROVISIONS

ARTICLE 3 - CONTRACTOR

3.4 Labor and Materials

Add the following Subparagraphs to Paragraph 3.4:

3.4.4 Substitutions:

1. When a material, equipment or system is specified by the name of one or more manufacturers, such material, equipment, or system shall form the basis of the Contract.
2. If the Contractor desires to make a substitution, he shall comply with applicable Specification requirements.

ARTICLE 4 - ADMINISTRATION OF THE CONTRACT

ARTICLE 5 - SUBCONTRACTORS

5.1 Definitions

Add the following Clause to Subparagraph 5.1 .1 :

- I. Add material and equipment suppliers whenever a reference to Subcontractors is intended to also apply to suppliers. Wherever relevant the term “Subcontractor” shall also include a person or entity who supplies material or equipment for the Project.

ARTICLE 7 – CHANGES IN THE WORK

Add the following after 7.2.1:

7.2.2.1.: An allowance for overhead and profit is to be in accordance with the subparagraphs below.

7.2.3.2.: For the purpose of this Contract, the percentage due to the Contractor for overhead and profit for changes in the work shall be limited to 10 percent (10%) of the cost of the work to the contractor, and the percentage due to the subcontractor shall be limited to ten percent (15%) of the cost to him, unless otherwise specified. Unless there is a change in the Scope of Work exceeding 5% of the entire project there will not be any additional profit added to the General Contractor for that subcontractor work.

7.2.3.3: Overhead shall include the following: supervision, superintendence, wages of job timekeepers, watchmen and job clerks, use of hand tools, incidental job burdens, general office expenses, insurance other than mentioned above and all other expenses not include in “cost”.

7.2.3.4: If the net value of a change results in a credit from the subcontractor, the credit shall be the net cost without overhead and profit.

7.2.3.5: If the Contractor, or any of his subcontractors, determine that the cost of their overhead for any proposed change order will exceed the percentage allowed above, the Contractor(s) shall provide a breakdown of such overhead (and profit) in his quotation. This will be used for consideration of an approval of the increased overhead by the Owner and the Architect prior to the issuance of the change order.

7.2.3.6: Each change order shall be supported by an itemized breakdown including cost data from all subcontractors involved with the change.

ARTICLE 8 - PROGRESS AND COMPLETION

ARTICLE 9 - PAYMENTS AND COMPLETION

9.3 Applications for Payment

Add the following Clause to paragraph 9.3.1:

- . the Contractor shall make application for payment in the amount of 95 percent of labor and materials incorporated in the Work and materials suitably stored at the Site and of materials properly identified with Owner’s name and project address suitably stored in a bonded warehouse up to the first day of the month, less the aggregate amount of previous payments. Upon substantial completion of the entire Work, the Contractor shall make application for payment of 95 percent of the contract price. Final payment shall be due 10 days after completion of all Punch List items and acceptance by Owner. The Contractor shall use AIA for G702 for Application for Payment or similar form approved by Architect / Owner.

9.4 Certificates for Payment

Add the following Clause to Subparagraph 9.4.1:

1. The agreement will provide a basis of payment of ninety-five percent (95%) and retention of five percent (5%) of the Contractor's costs as shown by him on the approved Application for Payment Form.

ARTICLE 11 - INSURANCE AND BONDS

END OF DOCUMENT

SECTION 01100 - SUMMARY

1.1 GENERAL

- A. Project Identification: Project consists of an Addition and Interior Alterations and limited site work for Novum Baptist Church.
- B. Architect Identification: The Contract Documents, dated 11-25-25, were prepared for the Project by Sanders Architecture, PC.
- C. The Work consists of all work as defined by the specifications, drawings and addenda.
 - 1. The Work includes construction of septic tank relocation, and 1,105 SF Addition and interior alterations with new toilets.
- D. Project will be constructed under a general construction contract.
- E. Work Sequence: The entire scope of Work (with alternates) is delineated in (1) phase. Portions of the work will need to be scheduled to permit continued use and exit from the existing occupied structure.
- F. Use of Premises: Contractor shall limit access and use to those portions of the site necessary for the new construction. Work must be scheduled and performed so that the existing church facility remains fully operational during normally scheduled events and occasional special events such as weddings and funerals. Contractor's use of premises is limited by Owner's right to perform work or to retain other contractors on portions of the Project.
 - 1. Separate Contract: Owner may award separate contracts for performance of certain work on site including AVL, telecommunications and security systems. Those operations may be conducted simultaneously and be coordinated fully with work under this Contract. Work that may be provided by others will be identified at the pre-bid meeting upon request.
- G. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.
- H. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

END OF SECTION 01100

SECTION 01140 - WORK RESTRICTIONS

1.1 GENERAL

- A. Use of Premises: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to area of site to be altered by construction activity. Stay off adjacent property and public streets without prior approval.
 - 2. Owner Occupancy: Owner will continue to operate on site. Access and operations must be maintained for this facility during regularly scheduled operations throughout construction.
 - 3. Tools and weapons: No weapons are permitted on this property at any time.
 - 4. Adjacent Site: Stay off of adjacent properties.

- B. Utilities: All existing utility services must be maintained operational at all times. Contractor may, with Owner's full approval, use on site water service & building electric (if available) for immediate construction needs. Contractor must provide temporary electric if the building service is not available and telephone services during construction. Contractor may not use the existing building toilets during construction without prior Owner approval. It is the intent of these documents that building utilities and occupancy of portions of the building that are not under construction continue during construction. The Contractor must maintain sewer, water, electricity and other utilities during construction.

- C. Air Quality: Maintain indoor and outdoor air quality to regulated safe levels at all times during construction. Do not permit construction dust to move to other areas of the building or site at any time. Measures shall be taken to control construction dust during site work operations. Finished areas of the new facility shall be protected from excessive dust and contamination during construction. Dust control shall include HEPA filter fans venting to the exterior as well as sealed barrier around construction area. Do not run HVAC systems in any area where dust or fumes are present.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION (Not Used)

END OF SECTION 01140

SECTION 01210 - ALLOWANCES

1.1 GENERAL

- A. Summary: Certain materials and equipment and, in some cases, installation may be specified in the Contract Documents by allowances. Allowances have been established to defer selection of actual materials and equipment to a later date when additional information is available. Additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances. Material allowance amounts indicated include the total cost, including taxes and shipping, of providing materials to the site. All installation costs including contractor's labor, overhead and profit are included in the contract base bid.
- C. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
- D. Selection and Purchase: At the earliest practical date after award of the Contract, advise Architect of the date when selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
 - 1. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
 - 2. Purchase products and systems selected by Architect from the designated supplier.
- E. Submittals: Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
 - 1. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- F. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. Prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.
- B. Preparation: Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.
- C. Schedule of Allowances: See individual specifications sections for Allowances.

END OF SECTION 01210

SECTION 01230 - ALTERNATES

1.1 GENERAL

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.
- B. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- C. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

END OF SECTION 01230

SECTION 01250 - CONTRACT MODIFICATION PROCEDURES

1.1 GENERAL

- A. Coordination: Related Sections include the following:
1. Division 1 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.
- B. Minor Changes in the Work: Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions." Or similar communication.
- C. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
1. Proposal Requests are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 2. Within time specified in Proposal Request, but no later than 20 days 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 taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. 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.
- D. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change.
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 taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. 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.
 5. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

- E. Proposal Request Form: Use AIA Document G709 for Proposal Requests or similar form acceptable to Architect.
- F. Allowance Adjustment: Base each Change Order proposal on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place. Allow for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs only where indicated as part of the allowance.
 - 2. Prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 - 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- G. Submit claims for increased costs because of a change in the allowance described in the Contract Documents, whether for the Purchase Order amount or Contractor's handling, labor, installation, overhead, and profit. Submit claims within 21 days of receipt of the Change Order or Construction Change Directive authorizing work to proceed. Owner will reject claims submitted later than 21 days after such authorization.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.
- H. Change Order Procedures: On Owner's approval of a Proposal Request, Contractor shall prepare a Change Order for signatures of Owner and Contractor on AIA Document G701 or similar form acceptable to the Architect and Owner.
- I. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714 or similar form. 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.
 - 2. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - a. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION (Not Used)

END OF SECTION 01250

SECTION 01270 - UNIT PRICES

1.1 GENERAL

- A. Unit price is a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.
- B. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 2. Division 1 Section "Quality Requirements" for general testing and inspecting requirements.
- C. Unit prices include all necessary material, cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- D. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
 - 1. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
 - 2. Contractor shall notify Owner prior to starting any unit cost work so the Owner may establish a method of measurement if one is not otherwise indicated in the construction documents. Contractor will not be paid for unit price work performed without the Owner's prior authorization and approval of unit quantities.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

- A. Unit prices which may be required are listed in each Specification section.

END OF SECTION 01270

SECTION 01290 - PAYMENT PROCEDURES

1.1 GENERAL

- A. Coordination: Related Sections include the following:
1. Division 1 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 2. Division 1 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.
- B. Schedule of Values: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. Correlate line items with other required administrative forms and schedules, including Submittals Schedule and Application for Payment forms with Continuation Sheets.
1. Submit the Schedule of Values to Architect at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 2. Format and Content: Use the Project Bid Form Schedule of Values or other approved schedule.
 3. 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.
 4. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value.
 - 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 5. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment. Provide several line items for principal subcontract amounts. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 6. Provide a separate line item for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

7. Provide separate line items for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other items that are not direct cost of work-in-place may be shown either as separate line items or distributed as general overhead expense.
 9. 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.
- C. Applications for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
 2. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
 3. Payment Application Times: The date for each progress payment is the 15th day of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends 15 days before the date for each progress payment.
 4. Payment Application Forms: Use AIA Document G702 as form for Applications for Payment or similar form approved by Architect / Owner.
 5. 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.
 - a. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 - b. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 6. Transmittal: Submit notarized PDF document.. Include waivers of lien and similar attachments if required.
 7. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
 - a. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
 - b. When an application shows completion of an item, submit final or full waivers.
 - c. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - d. Waiver Delays: Submit each Application for Payment with Contractor's waiver of mechanic's lien for construction period covered by the application.

- 1) Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - e. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
8. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
- a. List of subcontractors.
 - b. Schedule of Values.
 - c. Contractor's Construction Schedule (preliminary if not final).
 - d. Submittals Schedule (preliminary if not final).
 - e. List of Contractor's staff assignments.
 - f. Copies of building permits.
 - g. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - h. Certificates of insurance and insurance policies.
 - i. Performance and payment bonds.
9. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
- a. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - b. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
10. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
- a. Evidence of completion of Project closeout requirements.
 - b. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - c. Updated final statement, accounting for final changes to the Contract Sum.
 - d. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 - e. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - f. AIA Document G707, "Consent of Surety to Final Payment."
 - g. Evidence that claims have been settled.
 - h. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION (Not Used)

END OF SECTION 01290

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION

1.1 GENERAL

- A. Coordination: Coordinate construction operations included in various 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 with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
 - 4. If necessary, 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.
 - a. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- B. 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 conferences.
 - 7. Project closeout activities.
- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.
- D. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
 - 1. Indicate relationship of components shown on separate Shop Drawings.
 - 2. Indicate required installation sequences.

- E. Project Meetings, General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within 3 days of the meeting.
- F. Pre-construction Conference: Schedule a pre-construction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing.
 - d. Designation of responsible personnel.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for processing Applications for Payment.
 - g. Distribution of the Contract Documents.
 - h. Submittal procedures.
 - i. Preparation of Record Documents.
 - j. Use of the premises.
 - k. Responsibility for temporary facilities and controls.
 - l. Parking availability.
 - m. Office, work, and storage areas.
 - n. Equipment deliveries and priorities.
 - o. First aid.
 - p. Security.
 - q. Progress cleaning.
 - r. Working hours.
- G. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Submittals.
 - g. Review of mockups.
 - h. Possible conflicts.
 - i. Compatibility problems.
 - j. Time schedules.
 - k. Weather limitations.
 - l. Manufacturer's written recommendations.
 - m. Warranty requirements.
 - n. Compatibility of materials.
 - o. Acceptability of substrates.
 - p. Temporary facilities and controls.
 - q. Space and access limitations.
 - r. Regulations of authorities having jurisdiction.
 - s. Testing and inspecting requirements.
 - t. Required performance results.
 - u. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements.
 4. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- H. Progress Meetings: Conduct progress meetings at regular intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

- a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
 - 14) Documentation of information for payment requests.
3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
 - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION (Not Used)

END OF SECTION 01310

SECTION 01320 - CONSTRUCTION PROGRESS DOCUMENTATION

1.1 GENERAL

A. Submittals: Submit the following:

1. Submittals Schedule: Submit proposed schedule. Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category (action or informational).
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
2. Contractor's Construction Schedule: Submit initial schedule, to show entire schedule for entire construction period.

B. Coordination: Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from parties involved.
2. Coordinate each construction activity with other activities and schedule them in proper sequence.

1.2 PRODUCTS

A. Submittals Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrication, and delivery when establishing dates.

1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
2. Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

B. Contractor's Construction Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for commencement of the Work.

1. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - a. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.
2. Time Frame: Extend schedule from date established for commencement of the Work to date of Final Completion.
3. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

4. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - a. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 - b. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - c. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 - d. Startup and Testing Time: Include not less than (5) working days for startup and testing.
 - e. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 5. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - a. Work by Others: Include a separate activity for each portion of the Work performed by Others.
 - b. Work Restrictions: Show the effect on the schedule of limitations of continued occupancies, uninterruptible services, use of premises restrictions, and provisions for future construction.
 - c. Work Stages: Indicate important stages of construction for each major portion of the Work.
 6. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
 7. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, notify Architect and prepare a detailed report if requested. Submit with a request for information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

1.3 EXECUTION

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Actual Completion percentage for each activity.

4. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - a. Post copies in Project meeting rooms and temporary field offices.
 - b. When revisions are made, distribute updated schedules to the same parties and post in the same locations.

END OF SECTION 01320

SECTION 01330 - SUBMITTAL PROCEDURES

1.1 GENERAL

- A. Definitions: As follows:
1. Action Submittals: Written and graphic information that requires Architect's responsive action.
 2. Informational Submittals: Written information that does not require Architect's approval. Submittals may be rejected for not complying with requirements.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that requires sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Allow 15 days for processing submittals from Divisions 2, 3, 5, 15 and 16. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Allow 10 days for processing each resubmittal.
- E. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 4 by 5 inches (100 by 125 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Unique identifier, including revision number.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Other necessary identification.

- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 - 1. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

1.2 PRODUCTS

- A. Action Submittals: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Number of Copies: Submit PDF of each submittal, unless otherwise indicated. Architect will review and return digitally.
 - 2. Product Data: Collect & group information into a single submittal for each element of construction and type of product or equipment.
 - a. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - b. Mark each copy of each submittal to show which products and options are applicable.
 - c. Include the following information, as applicable:
 - 1) Manufacturer's written recommendations.
 - 2) Manufacturer's product specifications.
 - 3) Manufacturer's installation instructions.
 - 4) Manufacturer's catalog cuts.
 - 5) Wiring diagrams showing factory-installed wiring.
 - 6) Printed performance curves.
 - 7) Operational range diagrams.
 - 8) Compliance with recognized trade association standards.
 - 9) Compliance with recognized testing agency standards.
 - 3. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Shopwork manufacturing instructions.

- f. Templates and patterns.
 - g. Schedules.
 - h. Notation of coordination requirements.
 - i. Notation of dimensions established by field measurement.
 - j. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - k. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
4. Coordination Drawings: Comply with requirements in Division 1 Section "Project Management and Coordination."
 5. Samples: Prepare physical units of materials or products, including the following:
 - a. Comply with requirements in Division 1 Section "Quality Requirements" for mockups.
 - b. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - c. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected.
 - d. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Attach label on unexposed side.
 - e. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - f. Number of Samples for Initial Selection: Submit (2) full set[s] of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 - g. Number of Samples for Verification: Submit (2) sets of Samples. Architect will retain (2) Sample sets;.
 - h. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 6. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location.
 7. Delegated-Design Submittal: Comply with requirements in Division 1 Section "Quality Requirements."
 8. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
 9. Application for Payment: Comply with requirements in Division 1 Section "Payment Procedures."
 10. Schedule of Values: Comply with requirements in Division 1 Section "Payment Procedures."
 11. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design.
- B. Informational Submittals: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit PDF of each submittal, unless otherwise indicated. Architect will not return copies.
 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

3. Test and Inspection Reports: Comply with requirements in Division 1 Section "Quality Requirements."
4. Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
5. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
6. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
7. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
8. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
9. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
10. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
11. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
12. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
13. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
14. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
15. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures."
16. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
17. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
18. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections.
19. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
20. Construction Photographs: Comply with requirements in Division 1 Section "Construction Progress Documentation."

1.3 EXECUTION

- A. Contractor's Review: Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Architect's Action: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
 - 1. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 2. Informational Submittals: Architect will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
 - 3. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01330

SECTION 01400 - QUALITY REQUIREMENTS

1.1 GENERAL

- A. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Quality-control services do not include contract enforcement activities performed by Architect.
- B. Delegated-Design Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- C. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.
- D. Reports: Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Ambient conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and reinspecting.
- E. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- F. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- G. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

- H. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance for a minimum period of (5) years prior to this project.
- I. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a minimum (5) year record of successful in-service performance.
- J. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- K. **Testing Agency Qualifications:** An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- L. **Owner Responsibilities:** Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- M. **Contractor Responsibilities:** Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- N. **Special Tests and Inspections:** Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
 - 1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 - 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 - 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

5. Testing agency will retest and reinspect corrected work.
- O. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- P. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- Q. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
 5. Do not perform any duties of Contractor.
- R. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field-curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- S. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

- A. Repair and Protection: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
 2. Protect construction exposed by or for quality-control service activities.

3. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400

SECTION 01420 - REFERENCES

1.1 GENERAL

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved," when used in conjunction with Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Architect, requested by Architect, and similar phrases.
- D. "Indicated" refers to graphic representations, notes, or schedules on Drawings; or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.
- E. "Regulations" include laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install" describes operations at Project site including unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide" means to furnish and install, complete and ready for the intended use.
- I. "Installer" is Contractor or another entity engaged by Contractor, as an employee, subcontractor, or contractor of lower tier, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. The term "experienced," when used with the term "installer," means having successfully completed a minimum of five (5) previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.
 - 2. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- J. "Project site" is the space available for performing construction activities, either exclusively or in conjunction with others performing other work as part of Project. The extent of Project site is shown on the Drawings and may or may not be identical with the description of the land on which Project is to be built.

- K. Industry 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.
- L. Publication Dates: Comply with standards in effect as of the date of the Contract Documents.
- M. Conflicting Requirements: Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
 - 1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to Architect for a decision before proceeding.
- N. Copies of Standards: Copies of applicable standards are not bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source and make them available on request.
- O. Abbreviations and Names: Abbreviations and acronyms are frequently used in the Specifications and other Contract Documents to represent the name of a trade association, standards-developing organization, authorities having jurisdiction, or other entity in the context of referencing a standard or publication. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of these entities. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade & Professional Associations of the U.S.," which are available in most libraries.

1.2 PRODUCTS (Not Used)

1.3 EXECUTION (Not Used)

END OF SECTION 01420

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1.1 GENERAL

- A. Temporary contractor facilities are not required for this project. Any costs associated with temporary facilities required to execute this contract shall be included in the base bid cost. General Contractors should review anticipated material staging and project management requirements prior to the pre-bid meeting and ask questions concerning outside facilities, utilities, demolition and dumpster location, etc. at the pre-bid meeting.
- B. Temporary Toilets: Provide temporary toilets until substantial completion.
- C. Temporary Utilities: Except for scheduled utility connections projected to last less than (2) hours, provide continuous temporary utility service required to maintain building utilities at all times to all occupied portions of the site during the work.

SECTION 01600 - PRODUCT REQUIREMENTS

1.1 GENERAL

A. Definitions: As follows:

1. 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.
 - a. 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.
 - b. 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.
 - c. 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.
2. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
3. 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.
4. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
5. 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 Owner.

B. Substitution Requests: Submit request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use standard contractor request form.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified material or product cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to accommodate proposed substitution.

- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. List of similar installations for completed projects with project names and addresses and 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/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time.
 - 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 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 one week 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 7 days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.
- D. 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, even if previously selected products were also options.
- E. Product Delivery, Storage, and Handling: Use means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 5. Store products to allow for inspection and measurement of quantity or counting of units.
 6. Store materials in a manner that will not endanger Project structure.
 7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 9. Protect stored products from damage.
- F. Product Warranties: Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - a. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - b. Specified Form: Forms are included with the Specifications. Prepare a written document using appropriate form properly executed.
 - c. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
 2. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

1.2 PRODUCTS

- 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. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- 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.

- a. Substitutions may be considered, unless otherwise indicated.
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.
 - a. Substitutions may be considered, unless otherwise indicated.
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.
 - a. Substitutions may be considered, unless otherwise indicated.
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.
 - a. Substitutions may be considered, unless otherwise indicated.
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" Paragraph to obtain approval for use of an unnamed product.
6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in "Comparable Products" Paragraph 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" Paragraph.
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" Paragraph to obtain approval for use of an unnamed product.
 - a. Substitutions may be considered, unless otherwise indicated.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect'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, Architect 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, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.
- C. Product Substitutions: Architect will consider requests for substitution if received within 60 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's Construction Schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.
- D. Comparable Products: 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. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.

4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

1.3 EXECUTION (Not Used)

END OF SECTION 01600

SECTION 01700 - EXECUTION REQUIREMENTS

1.1 GENERAL

1.2 PRODUCTS (Not Used)

1.3 EXECUTION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
- B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 3. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.
- C. 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.
- D. 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 Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.
- E. Installation: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
 - 5. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

- a. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - b. Allow for building movement, including thermal expansion and contraction.
6. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
 7. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.
- F. Progress Cleaning: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 4. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
 5. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended.
 6. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
 7. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- G. Starting and Adjusting: Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
1. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- H. Protection of Installed Construction: Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- I. Correction of the Work: Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

END OF SECTION 01700

SECTION 01731 - CUTTING AND PATCHING

1.1 GENERAL

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include a description of cutting and patching and changes to existing construction, a list of products to be used and firms or entities that will perform the Work, dates when cutting and patching will be performed, and a list of utilities that cutting and patching procedures will disturb or affect.
 - 1. Structural Elements: No cutting of structural elements is permitted unless specifically indicated in the construction documents.
- B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
 - 1. If possible, retain original Installer or fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or fabricator, engage another recognized, experienced, and specialized firm.
- E. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

1.2 PRODUCTS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

1.3 EXECUTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

- B. Temporary Support: Provide temporary support of Work to be cut. This shall include all design and installation and removal costs associated with structural shoring, temporary support beams, etc. necessary to install the permanent structural modification.
- C. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- E. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas.
- F. Performance: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- G. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

END OF SECTION 01731

SECTION 01732 - SELECTIVE DEMOLITION

1.1 GENERAL

A. Definitions:

1. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
2. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
3. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
4. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

B. Materials Ownership: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

C. Submittals:

1. Proposed dust-control and noise-control measures.
2. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition work, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.
3. Predemolition Photographs: Show existing conditions of adjoining construction and site improvements.

D. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

E. Standards: Comply with ANSI A10.6 and NFPA 241.

F. Project Conditions:

1. Owner will occupy portions of building and site immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted. Extent of Owner's use of site and procedures for coordinating demolition will be addressed at the pre-bid meeting.
2. Maintain access to existing walkways, corridors, tunnels, and other adjacent occupied or used facilities.
3. Owner assumes no responsibility for condition of areas to be selectively demolished.
 - a. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

G. Hazardous Materials: A hazardous materials inspection and survey has been performed.

1. Hazardous materials abatement is not anticipated. If ACM are encountered following award of Contract, remove materials as part of the Contract work.

H. Storage or sale of removed items or materials on-site will not be permitted.

- I. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

1.2 PRODUCTS

- A. Repair Materials: Use repair materials identical to existing materials.
 - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 2. Use materials whose installed performance equals or surpasses that of existing materials.

1.3 EXECUTION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- C. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
- D. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- E. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.
- F. Utility Requirements: Locate, identify, disconnect, shut off, and seal or cap off indicated utilities serving areas to be selectively demolished.
 - 1. If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary utilities that bypass area of selective demolition and that maintain continuity of service to other parts of building where required.
- G. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- H. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
- I. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

- J. Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- K. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
- L. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of construction to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
- M. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
- N. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- O. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- P. Selective Demolition: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain [fire watch and] portable fire-suppression devices during flame-cutting operations. As a minimum a (4) hour fire watch shall follow all hot work.
 4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 5. Notify Owner promptly if selective demolition operations cause damage to adjacent parts or systems of the building – even if damage is repaired on the spot.
- Q. Removed and Salvaged Items: Comply with the following:
1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area designated by Owner.
 5. Protect items from damage during transport and storage.
- R. Removed and Reinstalled Items: Comply with the following:
1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.

4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- S. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.
- T. Patching and Repairs: Promptly repair damage to adjacent construction caused by selective demolition operations.
1. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
 2. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are demolished extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
- U. Disposal of Demolished Materials: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
1. Burning: Do not burn demolished materials.
 2. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 01732

SECTION 01770 - CLOSEOUT PROCEDURES

1.1 GENERAL

- A. Substantial Completion: 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 Owner of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities.
 5. Prepare and submit Project Record Documents, operation and maintenance manuals, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 8. Complete startup testing of systems.
 9. Submit test/adjust/balance records.
 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 11. Advise Owner of changeover in heat and other utilities.
 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 13. Complete final cleaning requirements, including touchup painting.
 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Substantial Completion Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect that must be completed or corrected before certificate will be issued.
1. 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. Final Completion: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."

2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report and warranty if applicable.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- D. Final Completion Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
- E. List of Incomplete Items (Punch List): Submit three (3) copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
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.
- F. Project Record Documents: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.
- G. Record Drawings: Maintain and submit one set of blue- or black-line white prints of Contract Drawings and Shop Drawings.
1. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
 2. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location. Review record set markings during construction site meetings for completeness.
 3. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.

- H. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications. Mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
- I. Operation and Maintenance Manuals: Assemble (3) complete sets of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual Specification Sections and as follows:
 - 1. Operation Data: Include emergency instructions and procedures, system and equipment descriptions, operating procedures, and sequence of operations.
 - 2. Maintenance Data: Include manufacturer's information, list of spare parts, maintenance procedures, maintenance and service schedules for preventive and routine maintenance, and copies of warranties and bonds.
 - 3. Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "OPERATION AND MAINTENANCE MANUAL," Project name, and subject matter of contents.
- J. Warranties: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
 - 1. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 2. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (115-by-280-mm) paper.

1.2 PRODUCTS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

1.3 EXECUTION

- A. Demonstration and Training: Instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Provide instructors experienced in operation and maintenance procedures.

2. Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at the start of each season.
 3. Schedule training with Owner, through Architect, with at least seven (7) days' advance notice.
 4. Coordinate instructors, including providing notification of dates, times, length of instruction, and course content.
 5. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections. For each training module, develop a learning objective and teaching outline. Include instruction for system design and operational philosophy, review of documentation, operations, adjustments, troubleshooting, maintenance, and repair.
- B. Final Cleaning: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
1. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 2. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove construction equipment and surplus material from Project site.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains.
 - f. Remove debris and surface dust from limited access spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces; shampoo if visible soil or stains remain.
 - i. Clean transparent materials, including mirrors and glass. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken transparent materials. Polish mirrors and glass.
 - j. Remove labels that are not permanent.
 - k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication and foreign substances.
 - m. Clean plumbing fixtures to a sanitary condition, free of stains.
 - n. Replace disposable air filters and clean permanent air filters.

